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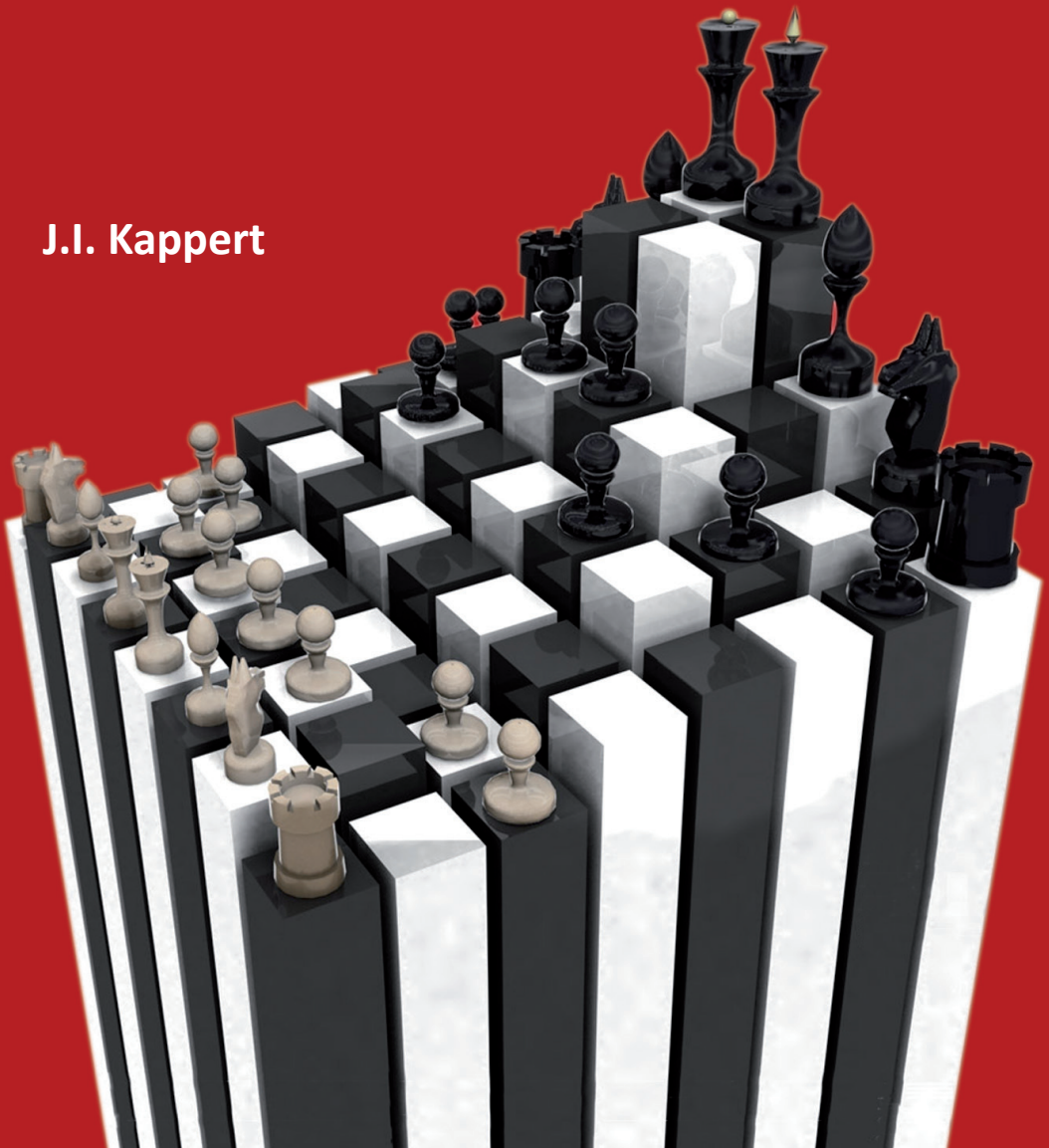
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Influencing Inside-Out

*Organizational Outward Influencing
in a Military New Product Development Context*

J.I. Kappert



Influencing Inside-Out

Organizational Outward Influencing
in a Military New Product Development Context

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VRIJE UNIVERSITEIT

Influencing Inside-Out

Organizational Outward Influencing
in a Military New Product Development Context

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad Doctor aan
de Vrije Universiteit Amsterdam,
op gezag van de rector magnificus
prof.dr. L.M. Bouter,
in het openbaar te verdedigen
ten overstaan van de promotiecommissie
van de faculteit der Economische Wetenschappen en Bedrijfskunde
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in het auditorium van de universiteit,
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door

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geboren te Hengelo (Ov)

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Ivar Kappert
September 2011

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LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|--------|---|
| AMP | Adviesraad voor Militaire Productie |
| AW | Agusta Westland |
| BWB | Bundesamt für Wehrtechnik und Beschaffung |
| CNAD | Conference of National Armaments Directors |
| COTS | Commercial off-the-shelf |
| CPM | Customer Product Management |
| D&D | Design and Development |
| DGM | Deputy General Manager |
| DMO | Defensie Materieel Organisatie |
| DMP | Defense Materiel Process |
| DP&P | Directorate of Projects and Procurement |
| EADS | European Aeronautic Defense and Space Company |
| EC(D) | Eurocopter (Deutschland) |
| ESA | European Space Agency |
| EU | European Union |
| FBW | Fly-by-wire |
| GM | General Manager |
| GPS | Global Positioning System |
| ICA | Inter Company Agreement |
| IEPG | Independent European Program Group |
| IETP | Interactive Electronic Technical Publication |
| ILS | Integrated Logistics Support |
| IPO | Integrated Program Office (Fokker) |
| IPO | International Program Office (NAHEMA) |
| ISS | In-Service Support |
| JEC | Joint Executive Committee |
| JVA | Joint Venture Agreement |
| MoD | Ministry of Defense |
| MoU | Memorandum of Understanding |
| NAD | National Armaments Director |
| NAHEMA | NATO Helicopter Management Agency |
| NAHEMO | NATO Helicopter Management Organization |
| NAO | Network Administrative Organization |
| NASA | National Aeronautics and Space Administration |
| NATO | North Atlantic Treaty Organization |

| | |
|------|---|
| NFH | NATO Frigate Helicopter |
| NH90 | NATO Helicopter of the 90s |
| NHI | NATO Helicopter Industries |
| NIAG | NATO Industrial Advisory Group |
| NIID | Stichting Nederlandse Industriële Inschakeling Defensieopdrachten |
| NIVD | Stichting Nederlandse Industrie voor Veiligheid en Defensie |
| NPD | New Product Development |
| OPCO | Operational Command |
| OPCO | Operational Company |
| Pi/P | Product Investment/Production |
| PMT | Product-Money-Time |
| PPC | Public Private Cooperation |
| PPP | Public Private Partnership |
| R&D | Research and Development |
| RAF | Royal Air Force |
| SC | Steering Committee |
| TTH | Tactical Transport Helicopter |
| WEU | West European Union |

CHAPTER ONE

Context, Aim, and Research Question

Chapter 1 Context, Aim, and Research Question

“The EU’s Galileo satellite navigation system seems typical of projects combining bureaucracy and government: high cost, delays, indecision, crossed purposes, conflicting national interests and wishful thinking.” (Nick Tredennick, 2008)

1.1 Setting the Stage

In March 2002, the European Union (EU) and the European Space Agency (ESA) agreed to develop a global positioning system that would outclass the existing American Global Positioning System (GPS) and the Russian Glonass system. Galileo, as it was called, is based on a constellation of 30 satellites and ground stations that provide information to determine the position of any individual or the location of any moving or stationary object, with a deviation of one meter or less. A higher level of accuracy and reliability in comparison to its competitors and the ability to work independently of the other systems (making it invulnerable to military cut off) were supposed to be features that customers were expected to pay for. The ‘unquestionable economic viability’, according to a PriceWaterhouseCoopers study (PriceWaterhouseCoopers, 2003) and the European Commission’s own figures (EC DGS Energy and Transport, 2005), was based on an expected benefit/cost ratio of 4.6:1. This score can be considered an impressive first place in the overall European infrastructure project listings. Furthermore, Galileo was intended to create “more than 150.000 jobs and [...] generate service and equipment contracts estimated at approximately 9 billion Euros per annum” (European Commission, 2007).

The future prospects of the Galileo Project were depicted as very optimistic on both EU and ESA websites and brochures. But as one zooms in on the actual project proceedings, reality looks more grim and less favourable. In fact, in their online journal of January 2008, the IEEE pronounced this project as ‘loser of the month’ as it overran its original 4 billion euro budget by 1,4 billion (and still counting), without having built a single test satellite on the original launch date. This project is not only a clear example of the enormous financial resources that are involved, but also of the complexity of modern NPD (New Product

Development) projects involving international collaboration in a public-private context. The project is a cooperation between the European Union and the European Space Agency, with respectively 27 and 15 member states (not perfectly overlapping). This number of members makes this project subject to different and conflicting national interests. These differences are often directed towards procurement processes, as each country tries to safeguard its own national industries' interests.

In addition to tensions among public partners, tensions between public agencies and private firms also played a significant role in this project. Disputes between public actors on issues like work share, for instance, slowed down the pace of the satellite building process. The private actors that were already involved in the project did not care about work share and the political rationale behind them. They were mainly interested in return on investment. The private aerospace consortia, led by the European Aerospace Defense Corporation in Amsterdam and Alcatel-Lucent in Paris, were unable to reach an agreement on how to develop the project plans and they were incapable of raising enough money for the entire Galileo satellite fleet. Stories differ whether the private actors pulled out or whether they were ditched by the public agencies. Nevertheless, the fact remains that only five years after the start-up, Galileo became a purely public undertaking that had no private connections left.

The Galileo project exemplifies the complexity and uncertainty public private projects have to endure, as reflected by Tredennick's quote at the beginning of this chapter (in: Sweet, 2008). The levels of complexity and uncertainty increase even more when the project's aims are directed towards the development of new, highly technological products or services. Complex technology, complex project organizations, industry politics, differences of interest between public and private actors, and technological developments during the process all contribute to a dynamic and uncertain environment for the partners involved. The context of most NPD projects in a public-private setting portrays these kinds of dynamic environments. Contexts in which different partners cooperate in order to achieve one or multiple sets of goals for their own interest. Interests that may not always be in the best concern of the partnership as a whole (de Man, 2004; Klijn & Teisman, 2003).

1.1.1 Subject of this Study

This study is about organizational influencing and although influencing has a rather machiavellistic connotation (Cobb, 1984), this study focuses on the way actors in complex settings pursue their respective interests while aiming at a shared goal at the same time. In that sense, the perspective used in this study has a more pragmatic view on a positively connotated concept like cooperation (Hardy & Phillips, 1998). As Zabusky was told during her research on cooperation in the European Space Agency by her respondents, that if it was cooperation she was looking for, she "(...) could not find it there, in the heart of their process, where working things out often entailed fighting things out." The participants' stance entailed a realistic, but rather negative view on cooperation, as they stated that "their primary experience was instead one of conflict, of contrary opinions and of competing interests; in their view, all of this was the antithesis of something that they might call cooperation" (Zabusky, 1995: 7). In other words, the practice of cooperation depends on the ongoing negotiation of the (often irreconcilable) differences between the actors involved.

As it is often the case, the integration of different interests comes with struggles, hurdles that have to be overcome in order to be able to move on, to refrain from getting stuck in arguments. It is about getting things done. These activities give rise to a power game that is often complex, sometimes harsh, but still, ever present. Influencing, as the use of power is referred to (Vecchio, 2007), is not necessarily opportunistic or machiavellistic in nature, but is pro- or reactive behavior of organizations who are faced with opportunities that arise in complex new product development (NPD) projects. Opportunities that offer organizations the chance to promote their self-interests.

1.1.2 Research Context

The Galileo example and Zabusky's study show that cooperation is at the heart of every complex project with multiple partners. They also demonstrate that differences between cooperating actors in combination with the inability to define precise specifications of products that have yet to be developed, contribute to an environment in which influencing is considered common practice. From that perspective, the focus of this study, influencing behavior, is best observed in environments in which 1) actors are able to influence and 2) in which differences of interest actually exist. Situations in which neither one of these circumstances are available leave little room to exert any influence towards

another actor. Finished products, standardized contracts, and of course perfectly aligned interests lead to a fast and simple exchange of goods or services. Looking for an area to study the concept of influencing at its full potential, one should look at the opposite situation. This can be found in projects with a wide variety of partners with different interests, which cooperate to produce a product or service that cannot be completely specified at the start of the project. These projects entail characteristics that provide, metaphorically speaking, both the motive and the opportunity to ‘commit the crime’ of influencing. Public-private new product development (NPD) projects therefore became the context of this study.

1.1.3 Discretionary Space: the Ability to Influence

Zabusky’s ethnographic study and the GPS example illustrate the complexity of public private projects, especially when directed towards the development of new, highly technological products or services. The complexities of these NPD projects contribute to a dynamic and uncertain environment for the partners involved. It embeds them in networks of interdependencies and social relations (Granovetter, 1985). These interdependencies are a normal spin-off in an era in which products become more and more complex and in which organizations are unable to produce these products in splendid isolation (Kim & Wilemon, 2003). Relying on other organizations seems logical and inevitable, but it has an evident characteristic: it makes organizations interdependent. Interdependence is always to some extent accompanied with uncertainty and that is something organizations try to avoid or at least try to control or diminish (Weitz & Shenhav, 2000).

Organizations are trying to reduce uncertainties by using devices like ex ante contracts, penalty clauses, and other formal agreements (Das & Teng, 2000). With a focus on controlling uncertainties, Transactions Cost Economics (TCE) theorizes on the control and governance of mutual dependent actors and their transactions. It depicts classical contracts as the optimal form for governing non-complex transactions. An underlying assumption for these contracts was that they would be “... feasible to measure, with reasonable precision, the performance that is desired” (Ouchi, 1979: 843), demanding perfect understanding of inputs, behaviors and outputs (Williamson, 1991). An early and sharp product definition, preferably prior to the development phase is of course beneficial for the NPD process as it “disciplines the NPD process by ensuring that the subsequent development tasks can begin with certainty and not be subject to needless changes in

input information which can be difficult and expensive to implement” (Bhattacharya, Krishnan, & Mahajan, 1998: 51).

However, because of the human inability to precisely foresee future outcomes, actors, bounded in their rationality, cannot predict and specify performances in advance. Incomplete ex ante understanding then translates into incomplete contracts which “leaves room for interpretation and an evolutionary path by which the transaction unfolds” (Williamson, 1994). Building on contract law (Macneil, 1974, 1978), Williamson suggests that actors move from classical contract to neoclassical or relational contract law. With neo-classical contract law, reciprocal performances remain incompletely specified in order to leave room for adaptation during contract execution (Williamson, 1991). Relational contracts are even a step further away from classical contracts as they rely on the identity and trust of partners and their mutual relationship (Ben-Porath, 1980). These three forms of contracting offer a contractual governance continuum between “unbounded” rational behavior on one side and deterring opportunistic behavior on the other. A continuum that makes clear that organizations, between both ends, have room to maneuver in the contractual space that is offered by behavioral and environmental factors surrounding new product development projects. From a more pragmatic point of view, this discretionary space offers organizations opportunities to influence the project according to their own likings and interests.

1.1.4 Differences of Interest

Although there are many reasons to participate in networks in general (Oliver, 1990; Powell, 1987), for public authorities and private firms in NPD projects it mostly comes down to the ability to develop a product or service that neither the public nor the private actor would have been able to produce on its own (Klijn et al., 2003). It implies specialized private actions with significant public benefits that calls for industry-specific competencies (Rangan, Samii, & Van Wassenhove, 2006). In most NPD projects public and private parties depend on each other, for public agencies lack specialized resources and therefore are not capable of developing specific goods, while on the other hand private companies depend on public authorities to acquire goods that are demanded for public interest only. In case of this particular research domain, consider stealth fighters, combat tanks, or submarines.

This product related interdependency between public and private partners is often further complicated due to the fact that most cooperative efforts are often directed towards the development or use of new technologies, services or goods (Schaeffer & Loveridge, 2002)

from which future outcomes are hard to predict. This implies a risky endeavor with uncertain outcomes that often demand complex, non-standardized and open contracts. These contracts based on uncertain future prospects, therefore, require significant coordination between the actors involved (Schaeffer et al., 2002). Although issues of coordination in inter-organizational relationships have been studied intensively (e.g. Grandori, 1997a, b; Grandori & Soda, 1995, 2005), problems of understanding between participants in these relationships still remain (Vlaar, Van den Bosch, & Volberda, 2006). These problems emanate from the fact that cooperating parties have dissimilar backgrounds and belief systems (Sutcliffe and Huber, 1998), and are accustomed to different structures, cultures (Barkema & Vermeulen, 1997; Doz, 1996), and management styles (Alford, 2001; Lane & Lubatkin, 1998). Referring specifically to differences between partners in cross-sectoral partnerships, distinctions are identified in diverse areas as differences in ownership, differences in ways of funding and modes of social control (Perry & Rainey, 1988), different motivations for and expectations towards partnering, differences in the management of partnerships, and differences in the evaluation of outcomes (Ellersiek & Kenis, 2007).

Cross-sector partnerships are perceived as beneficial for mutual learning, exchange, and the generation of new ideas and solutions (e.g. Waddel, 2005), while on the other hand the differences between these partners are perceived as insuperable (Johnson 2007) and are deemed the most common obstacle to successful partnering (Krishna 2003). Bringing more diversity into a partnership also means collaboration of more interdependent actors with a wider variety of perceptions, interests and backgrounds. This variety then results in an arena of potential conflicts. An arena in which influencing is germane and ever present.

1.2 Research Gap

Influencing, in the broadest sense, has drawn the interest of many academic researchers for centuries. The most noticeable, early works include Machiavelli's *Il Principe* (1532) and Thomas Hobbes' *Leviathan* (1651). Despite the long lasting interest in the notion of influencing, it is still the object of contemporary research. More recent research, with reference to Machiavelli and Hobbes, revealed many issues of power in action. On an individual level of analysis these studies focused on areas including the direction of influencing (Keys & Bell, 1982), relations between influencing tactics and strategies (Kipnis, Schmidt, & Swaffin-Smith, 1984) and relations between use of tactics and desired objectives (Yukl, Guinan, & Sottolano, 1995). At a higher level of analysis, studies focused on managing resource dependencies (McNeil, 1978; Pfeffer & Salancik, 2003), power sources (Ellersiek et al., 2007), and antecedents for the use of power in organizations

(Graham Astley & Sachdeva, 1984; Hinings, Hickson, Pennings, & Schneck, 1974; Pfeffer, 1981, 1992; Vecchio, 2007). Most research in this realm was focused on the intra-organizational¹ use of influencing, either upward, downward or lateral. The notion of outward influencing as the only external oriented direction of influencing, however, received much less attention² (Gupta & Case, 1999). This is remarkable, as both public and private organizations engage more and more in project networks and alliances in both national and international contexts. Even now, when we find ourselves in a so-called 'network economy' (de Man, 2004), research on the use of power in cross-sector partnerships still is extremely rare (Hastings, 1999; Selskey & Parker, 2005). With this in mind, this study investigates the way organizations use their power in these complex modes of cooperation. This notion, together with the characteristics of current NPD projects and the lack of scientific knowledge of day-to-day 'negotiation of differences' (Zabusky, 1995) or insight in the 'arena of conflicting interests' (Klijn et al., 2003) justifies an in-depth investigation of organizational influencing. A justification that is supported by Atuahene-Gima and Evangelista who explicitly stated that:

"Influencing is germane in NPD because at its core NPD is about risk, ambiguity and uncertainty, and is replete with functional conflicts caused by differences in perceptions and self-interests" (Atuahene-Gima & Evangelista, 2000: 1269).

Figure 1 represents the line of reasoning that links the initial motivation of this study to the cases this study analyses. The real life examples mentioned in the introduction indicate the motivation for and relevance of an understanding of influencing, as it is germane in modern new product development projects. In addition, the emphasis on individual and intra-organizational influencing in contemporary research leaves room for a further examination of the subject of this study: organizational influencing.

¹ What is considered inside and what is considered outside the organization depends on the level of analysis. In case of the papers mentioned, the organization was depicted as a 'single' organization comprised of different departments and not as a network organization constituted of several independent organizations.

² Personal opinion expressed by John Child at the 2010 Organization Science Winter Conference in Steamboat Springs, USA.

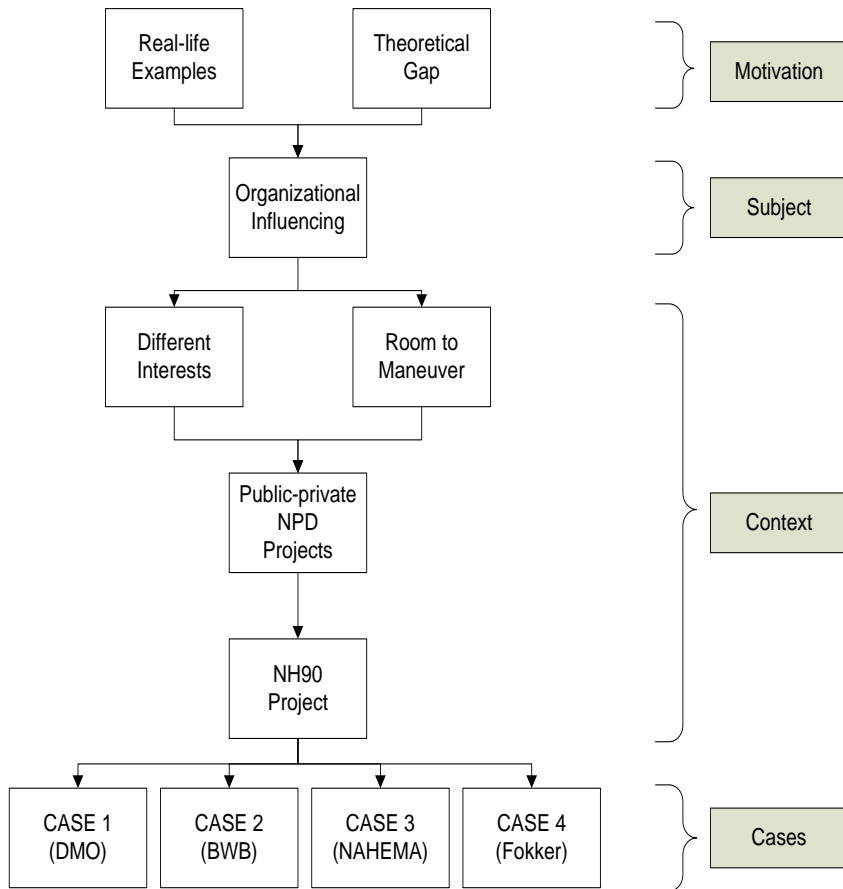


Figure 1: Line of Reasoning

This particular subject demands a research context in which influencing processes will actually occur. Actors need to have different interests and the actors need to have the ability to exercise their influencing attempts. Both characteristics are reflected in public-private new product development projects. Shifting from a theoretical line of reasoning, this study then turns to a real-life project that represents a research context that incorporates the necessary characteristics: the NH90 project. This project delivers four cases from which the respective organizational, outward influencing activities will be studied.

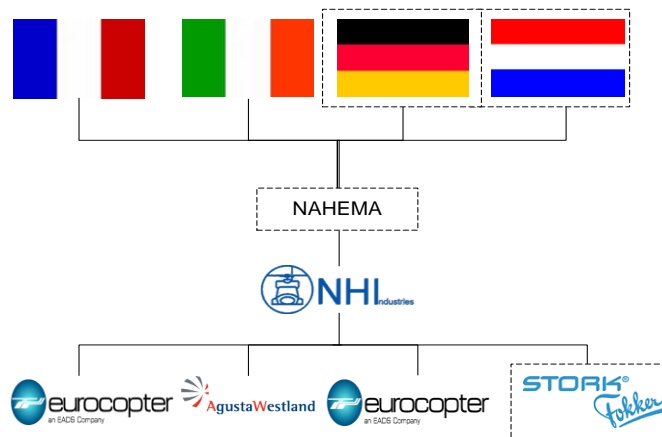


Figure 2: Organigram of the initial actors of the NH90 program

Figure 2 displays the organizations that participate in the NH90 project. The ‘public’ side entails the four founding nations: France, Italy, Germany, and the Netherlands. These countries are represented by the NATO Helicopter Management Agency, or NAHEMA in short. Eurocopter France, Eurocopter Germany, Agusta, and Fokker are the private partners in this consortium. They are represented by NH Industries, or NHI in short. The organizations portrayed with a dotted line will serve as the four cases of this study: The Netherlands, represented by their Defense Materiel Organization (DMO), Germany, represented by their Federal Office of Defense Technology and Procurement (BWB), NAHEMA, and Fokker.

1.3 Research Focus

The focus of this study is divided in four parts. First, this thesis concentrates on organizations as unit of analysis. When organizations interact with their project partners, they are commonly perceived as nodes, a black box that acts as one entity. This study, however, moves beyond this reified idea of network nodes. In practice, organizations consist of CEO’s, project teams, liaisons, alliance departments and so on, all to some extent connected to other levels in partnering organizations (Floyd & Lane, 2000; Paroutis & Pettigrew, 2007). In order to understand the generated outcome of the overall, organizational, outward influence attempt, it is necessary to have a closer look at the dispersed influence attempts that are exerted at these organizational layers and at the organization of the means and ends these layers possess to exert power over their counterparts. The interactions to combine strategic action between organizational levels,

however, are complicated because of the differences in goals, time horizon, information requirements, core values (Floyd et al., 2000) or, on a more abstract level, in fabrics (Johnson, 1988), thought worlds (Dougherty, 1992) or logics of action (Bacharach, Bamberger, & Sonnenstuhl, 1996) that exist between different organizational levels. This study zooms in on these complications to determine how they influence the overall influencing attempt at the organizational level.

Second, this study focuses on organizations in public-private NPD projects. In their theory of nested structuration, Perlow, Gittel, & Katz (2004) suggest a mutual relationship between organizational practices and the larger institutional context. They found that 'patterns of interaction and elements of the organizational context appeared to create a mutually reinforcing relationship, which itself, as an entity, appeared to be reinforced by elements of the larger institutional context' (Perlow et al., 2004: 532). Drawing on these findings, this implies an influence from the institutional context on the organization and vice versa (Aiken & Hage, 1968; Perlow et al., 2004). As this study focuses on means-end frames that influence the way organizational layers cooperatively encounter network issues, institutional context plays a significant role in this process.

Third, this study concentrates on the means and ends that are distributed throughout the organization to influence project partners. The overall tendency in influence literature suggests that in order to exert power over a 'target' the actor needs some source of power, or means, to influence the target's decision making process to obtain his ends (Pfeffer, 1992; Schilit & Locke, 1982; Vecchio, 2007). For this study, the concept of means-end frames, or logics, is used. Logics refer to the means – end relationship actors bring to an exchange (Bacharach et al, 1996: 477). Alford and Friedland (1991: 248-249) define logics as 'sets of material practices and symbolic constructions that constitute an institutional order's organizing principles' that are 'available to organizations and individuals to elaborate. They are symbolically grounded, organizationally structured, politically defended and technically and materially constrained'. Logics specify what means and ends are considered legitimate, and specify what actors have the authority to enable and constrain the possibilities of other actors and specify criteria for effectiveness and efficiency (Lounsbury, 2002: 255). In conclusion, for this study logics are used as an instrument to analyze the way organizations influence their project partners.

The main content of focus are the logics (means-end frames) of organizational layers and the relations between these layers while exerting power over project partners. This is conceptually displayed in figure 3.

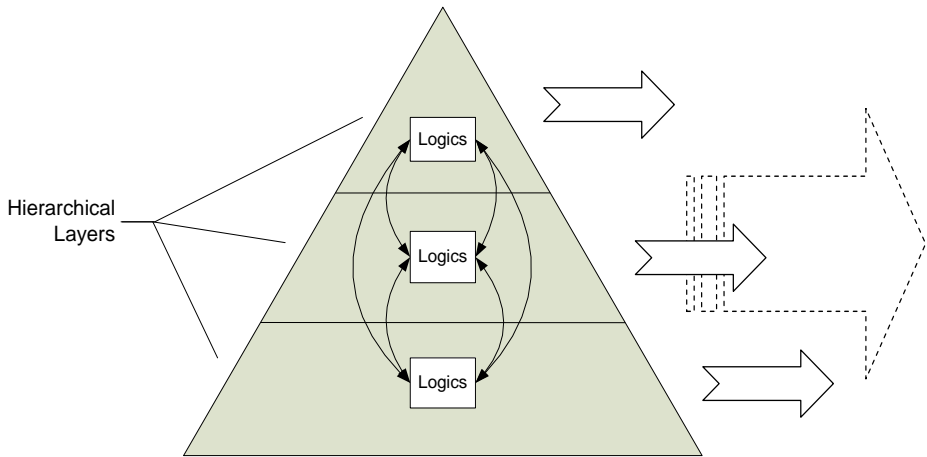


Figure 3: Conceptualization of Organizational Outward Influencing

The triangle represents the organization with the horizontal lines symbolizing hierarchical layers. The boxes stand for the means-end frames these layers possess and the arrows between them indicate the corresponding coordination between these layers. The larger arrows represent the actual influence attempts of the respective layers. The big dotted arrow displays the overall influencing effort of the focal organization.

Fourth, the context of the four cases is a real-life NPD project in a public private, multinational context. This specific project is directed towards the development of a military helicopter, the NH90. This military setting automatically induces political involvement (Uiterwijk & Kappert, 2010). Within this context, the focus is directed towards organizational outward influencing by both public and private partners that cooperate in this specific project.

1.3.1 The Notion of Logics

Now the research focus is established, the question then is *how* to focus on the elements described in the previous paragraph. For this, logics of action are used as an instrument for analysis. By using logics as an instrument, differences between units in organizations can be observed and the relation between the organization and its members can be analyzed (Karpik, 1978b). This way, differences between the various groups, both intra-organizational units as inter-organizational partners, can be indicated.

The concept of diversity in relation with competing interests is of particular significance for public-private NPD projects, as they often include a wide variety of actors (Klijn et al., 2003). They all have incorporated their different characteristics partly as a consequence of the goals, histories, traditions, beliefs and values of the organizations they represent. These organizations have developed their own interpretive schemes (Bartunek, 1984; Daft & Weick, 1984), through which they filter cues from their environment and develop their own specific means, through which they respond to these environmental cues. There has been extensive research focusing on these cognitive processes, labeled under a wide variety of concepts, e.g. fabrics (Johnson, 1988), interpretive schemes (Bartunek, 1984; Daft et al., 1984), thought worlds (Dougherty, 1992), paradigms (Johnson, 1988), logics (of action) (Alford & Friedland, 1991; Karpik, 1978b) or scripts (Gioia & Poole, 1984).

These different filters, means and responses that organizations bring along are all brought together in the arena of public-private NPD projects (Klijn et al., 2003). To further complicate this arena, these differences, however, not only exist between organizations, but also occur between different hierarchical levels (Bacharach et al., 1996) or different departments (Dougherty, 1992:123) within organizations. This implies that these differences can induce tensions during cooperation processes between organizations, between different levels and departments within a single organization, and a combination of both. Logics of action and the use of this concept as an analytical tool are further explicated in the theoretical part of this thesis.

1.4 Research Question and Research Objectives

By means of thick description of the NH90 project, the aim of this study is to develop an empirically informed understanding of how organizations within this specific project influenced their partner organizations. At the core, a thorough understanding of influencing processes within NPD projects concerns an understanding of the strategic use of means to pursue certain ends within the specific realm of new product development projects. Acknowledging this, a number of considerations need be to be taken into account.

First, the specific context of military NPD projects has its impact on the actors as they participate in these projects. Specific characteristics, such as the political implications and the inability to reach for an early and sharp product definition can both constrain and enable these actors in the way they influence each other. As context plays a significant role in interpretive research, it is important to understand how characteristics of NPD projects enable or constrain participants in their influencing behavior.

Furthermore, research on intra-organizational influence tactics made clear that individuals have several means at their disposal to influence their peers, bosses or subordinates (Kipnis & Schmidt, 1988; Somech & Drach-Zahavy, 2002; Yukl et al., 1995). This study, however, is directed towards a higher aggregation level and focuses on the organizational means of outward influencing. As Pfeffer (1981) argues, intra-organizational influence is first and foremost a structural phenomenon, linking the use of power to hierarchical position, authority, and other legitimate sources. This study continues this line of thinking by using logics as the conceptual lens through which the concept of influencing is studied. According to Lounsbury (2002), means-ends frames are organizationally structured within the organization, although their contents differ between organizational layers (Bacharach et al., 1996; Dougherty, 1992). With the structural division of means and the focus on organizational influencing in mind, it is important to understand which means organizations have to influence NPD-project partners and how these means are distributed between the organizational layers.

In addition to having different means, organizational layers may also pursue different ends (Bacharach et al., 1996; Dougherty, 1992). In this perspective, project teams, for instance, could pursue different objectives than their colleagues at a political or top management level. One should therefore consider what project related ends organizations pursue and whether they differ between organizational layers.

After extensive research (Falbe & Yukl, 1992; Kipnis, Schmidt, & Wilkinson, 1980; Yukl & Falbe, 1990; Yukl et al., 1995; Yukl & Tracey, 1992), it is widely acknowledged that individuals use several tactics 'to get one's way'. How organizations combine and coordinate their outward influencing efforts on the other hand, is still less well-known. This thesis is therefore also focused on whether, and if so how, organizations use strategies and tactics related to the means they possess and the ends they pursue and whether they coordinate these tactics between organizational layers.

With these considerations in mind, the overall research question, guiding this study, becomes:

How do the four focal organizations, participating in a New Product Development Project, influence their project partners?

With a comprehensive description of the NH90 project to illuminate contextual characteristics and a thorough portrayal of four organizations with personnel that actually conduct influencing practices in this project, this study contributes to theory development

in the field of organizational influencing. It pays attention to the issues and constraints that people at different hierarchical levels experience when they interact across (sub) unit boundaries, investigates the background of these issues, and examines whether and how organizations organize and execute their influencing methods. Although generalizing claims in interpretive research are to a certain extent modest, the interpretation of field data in this thesis ought to take knowledge development a step further, beyond a mere description of facts. It should lead to a framework that contributes to the field of practice by providing an overview of organizational means-end frames during cooperative efforts in NPD projects. In sum, this study is conducted to attain the following two objectives:

1. To acquire an in-depth understanding of how four organizations, involved in the NH90 NPD project, influence their project partners.
2. To develop a conceptual model of outward organizational influencing processes that can inform managerial practice.

1.5 Relevance of the Research

Despite a long lasting interest in the topics of organizational politics and influencing, the specific topic of outward influencing tactics has received scant attention (Gupta et al., 1999). By focusing on the use of outward influencing tactics of organizations directed towards their project partners, this study tries to fill that gap. Furthermore, due to the focus on the coordination between different levels within organizations, this study tries to combine organizational context and the exertion of its power bases, thereby combining a micro and macro view on organizational politics.

Second, this thesis contributes to the strategy-as-practice literature by illuminating the implications of internal strategizing routines for strategic outcomes at the organizational level. Furthermore, it extends literature on strategizing by providing an empirical, in-depth insight in the practice of strategy between different organizational levels oriented towards its pluralistic environment, thereby combining and extending prior research on this topic (Denis, Langley, & Rouleau, 2007; Floyd et al., 2000; Paroutis et al., 2007).

The third contribution lies in the realm of network organization research. Focusing on network actors, network researchers appear to see these actors as organizations with clear cut boundaries with their own internal processes or as black boxes in organizational networks. Until recently, the way in which organizations internally coordinate their network activities have not been studied thoroughly. Although in recent years a substantial literature on networks emerged from both an egocentric (see e.g. Ahuja, 2000;

Gulati & Gargiulo, 1999; Uzzi, 1997) and network level perspective (see e.g. de Man, 2004; Provan, Fish, & Sydow, 2007; Provan & Milward, 1995), the actual processes that occur within the different levels of organizations to cooperatively encounter inter-organizational issues, remains understudied. This study makes an effort to fill that gap.

The fourth contribution lies in the field of practice. In-depth insight in the way intra-organizational processes advance and affect external influencing should contribute to the goal of this research: to enable project managers, and all other practitioners involved in complex project networks, to improve coordination between organizational layers. It should furthermore enhance their capabilities to work more effectively as one organizational entity in their interaction with project partners.

1.6 Research Design

This study can be considered as theory building in the realm of inter-organizational influencing. To ensure this study attains its two objectives, it embraces an inductive logic, thereby relying on a qualitative, interpretive approach. As Corley en Gioia (2004: 178) stated, “interpretive research focuses on building an emergent theory from a perspective that gives voice to the interpretations of those living an experience”, which in this case reflects the influencing activities of organizational members. Social phenomena, such as influencing, are constructed by interpretations of individuals. This notion requires the researcher to “dig into the processes of subjective interpretation, acknowledging the specific motivations and interests of the participants” (Blumberg, Cooper, & Schindler, 2008: 21). To present such a thorough description and in-depth analysis of the actual processes that occur within and between organizations, a case study was conducted. Thereby not only taking the individual interpretations into account, but also the contextual factors of interacting in a NPD project environment (George & Bennet, 2004; Miles & Huberman, 1994; Yin, 2002).

Learning from research on intra- and inter-organizational influencing and research on logics of action, these global insights, or ‘sensitizing concepts’ (Klein & Myers, 1999; Wester & Peters, 2004), provide an rationale and direction, and for that an analytical lens through which the data can be observed.

To generate data, four case studies were carried out in a multinational, public-private NPD project that involved a cooperative effort between the defense departments of four nations (France, Germany, Italy, and The Netherlands), and four primary defense contractors from each of the participating nations (Messerschmitt-Bölkow-Blohm (GER),

Aerospatiale (FR), Agusta (IT), and Fokker (NL).³ The network was composed to develop and build a helicopter suitable for 21st century military operations. Starting in 1989, the project endured several changes and setbacks and after eighteen years, the first helicopters have been introduced to the participating armies and navies.

As stated in the introduction, NPD projects are subject to several specific characteristics that induce influencing behavior, and for that they are ideal objects to investigate the concept of influencing. In case of the NH90 development program, most noticeable are the national political interests, specifically the industry-economical interests, which play a significant role. Furthermore, the project faced the normal situation of being unable to start with a clear product definition. Closed contracts were therefore impossible to generate, which on its turn left the participating actors room to maneuver. Under NATO guidelines, a complex international project organization was constructed with both public and private actors, which made this project an ideal context to study the influential actions of the participating actors. Especially when considering the different organizational levels that are involved, ranging from operational project teams to State Secretaries and Ministers of Defense, each playing their own, crucial role in this project.

The case study as it is conducted in this thesis, can be considered an embedded multiple case study (Yin, 2002). The context has been selected based on the criteria of public-private cooperation, a new product development setting, and having a project as an organizational form. Furthermore, the four cases needed to contain multiple layers within its organization. Although organizations are the units of analysis, the focus is on subunit levels due to the goal of the study. This should provide an insight in the way different organizational layers use the means they have at their disposal to influence their respective counterparts and the ends these organizational layers pursue. Concluding remarks will be made about the organizational level, to evaluate the intra-organizational processes that produce an outward oriented influence strategy. This analytical process is conducted at each case, all of them participating in the same project. This way, the contextual environment is identical for all four cases.

Data for this study were generated from interviews and handwritten and electronic documents. The interviews were conducted between December 2006 and November 2010, on site of the respondents. The interviews lasted between one to two-and-a-half hours. Multiple respondents from within one organizational level were used both to

³ After the restructuring of the European defense industry during the last decade, some of the partners involved in the project merged with other companies. At present, the companies involved are Eurocopter Germany, Eurocopter France (both subsidiaries of EADS), AgustaWestland, and Fokker Aerospace (a subsidiary of Stork).

obtain different perspectives across different levels within the organization and to promote the validity of the data by cross checking responses about factual issues. Documentation data was used as a complementary resource for triangulation (Miles et al., 1994). Moreover, these data were used to better understand procedures and agreements between the network actors. The documents consisted of 57 minutes from the joint executive committee, including personal notes added to them by a former project leader and 24 minutes from the Steering Committee. Furthermore, annual reports from the Dutch Defense Materiel Organization to the parliament, and the official Memoranda of Understanding and contracts between the participating partners were made available for this research. Although these contracts gave invaluable insights in the formal agreements between the network actors, their confidentiality prohibits further publication.

1.7 Thesis Setup

This thesis is structured as follows. The next chapter elaborates on new product development projects and identifies to what extent NPD characteristics enable and constrain actors in their influencing activities during NPD participation. This provides insight in the context that shapes influencing activities. Furthermore, chapter 2 focuses on the notion of logics of action within organizations, while the last part of the theory section zooms in on the means-end frames that encompass organizational influencing. After chapter 3 (empirical research methodology), four cases are described that were involved in a major NPD project (chapter 4). Chapters 5 and 6 contain a description of the context findings and the case findings. Chapter 7 comprises the cross case analysis. Finally, chapter 8 concludes this thesis by discussing the research findings and identifying contributions, limitations, and future research. The thesis setup is represented in figure 4.

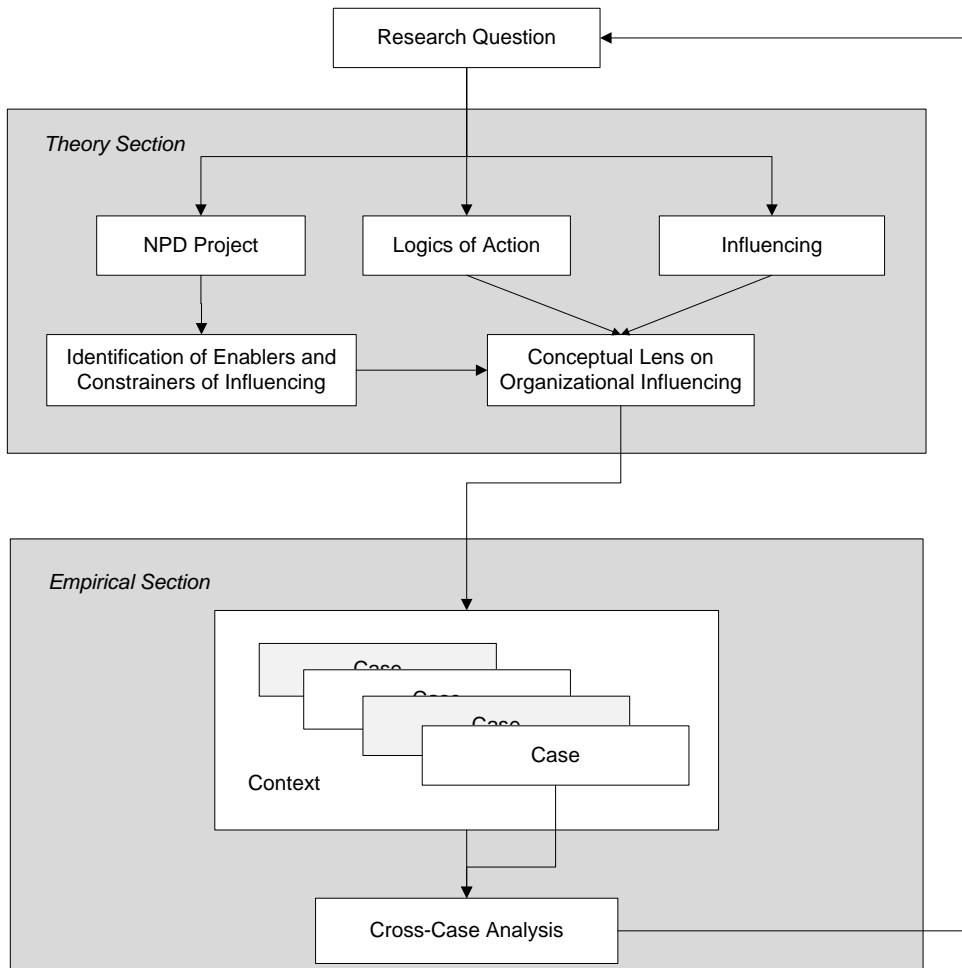


Figure 4: Thesis Setup and Research Domains

The outcomes of the cross-case analysis deliver the answer to the main research question and contribute to a better understanding on how the four organizations in this particular new product development project influence their project partners. The development of a conceptual model of outward organizational influencing processes, based on these insights, furthermore contribute to managerial practice, thereby addressing the second research aim.

CHAPTER TWO

THEORY

Chapter 2 Theory

2.1 Use of Theory and Setup

The role of theory in research is a major concern for any researcher, regardless of research tradition or philosophical stance. According to Eisenhardt (Eisenhardt, 1989: 17), theory can play three different roles in research: (1) as a preliminary lead to design and data collection; (2) as part of an iterative process of data collection and analysis; (3) and a theory can be the end result of a study.

First, Walsham concluded that “the motivation for the use of theory in the earlier stages of interpretive case studies is to create an initial theoretical framework which takes account of previous knowledge, and which creates a sensible theoretical basis to inform the topics and approach of the early empirical work” (Walsham, 1995: 76). The purpose of this chapter is to build on insights derived from literature closely related to the subject of interest of this study, e.g. organizational influencing.

Second, by turning to what we already know from related areas, thereby gaining insights in advance of the context in which the study is conducted, we can have some understanding of what to expect while gathering and analyzing data. Theory provides us with an analytical lens that guides the researcher through the design and data collection phases. Whereas this lens can be of great use by focusing on the subject while not getting too distracted by circumstantial elements, it still is necessary to expect the unexpected and not to stay fixated on theories and models that do not precisely match the specific subject of this study. Furthermore, theory-derived models may not match reality because they were created as a tool to analyze data *before* it was gathered and as such they were created for an expected reality, not for a studied reality. For these reasons it is necessary not to use existing theories too rigidly as it could narrow a researcher’s sight on new issues and avenues of exploration. Although an initial theoretical framework or analytical lens can serve as a useful guide during data gathering, it is crucial in interpretive research to stay open minded to the field data and to obtain a willingness to set aside or modify initial theories or assumptions. “This results in an iterative process of data collection and analysis, with initial theories expanded, revised, or abandoned altogether” (Walsham, 1995: 76).

And third, theory can be the final product of research. The output of case study research can result in the development of concepts, conceptual frameworks, the derivation of

specific implications, contributions of rich insights (especially in interpretive research), or mid-range theory (Eisenhardt, 1989; Walsham, 1995). From her positivistic stance, as Eisenhardt herself explicitly states, mid-range theories should be tested formally, while interpretivists would disagree on this matter. Especially due to the limitations of context, generalizability plays an important role in case study research. It does so in research in general, but its role takes a specific place in interpretive research. The explanation of this and the stance of this study towards generalization are explicitly stated in the methodological section of this study.

All three uses of theory are incorporated into this study, although the first and the last are most visible in this thesis. The second role, the iterative process, is primarily used in the practice of conducting research. For the sake of readability, this process is not portrayed in chronological order. The use of theory as an initial guide is the role of theory in this chapter. For this purpose, it starts with explaining the notion of logics as the set up for constructing a conceptual framework. Building on this notion and expanding its initial set-up, the second section will discuss the context of organizational influencing. This context is situated in new product development (NPD) projects and, to be even more precise, in a public-private cooperative setting. This section concludes with the relation between context and subject. The following section zooms in on the core subject of this study: influencing. It describes the notion of influencing and extract several elements that will contribute to data collection and data analysis. Building on insights derived from literature on logics of action, NPD projects, and influencing, this chapter provides an initial theoretical framework. This chapter concludes with an overview of the findings that will guide further design and data analysis.

2.2 A Substantial Perspective on Organizational Influencing

For this study, the focus is on outward influencing actions of organizational members. They are organized in dispersed hierarchical layers in the context of a New Product Development project. This study explores the types of influencing actions members exert and it attempts to explain the tactical intent underlying the selection of these actions. The primary objective is to better understand the outward influencing process of organizations in these types of projects. From a less narrow perspective it can be said that this study zooms in on the relationship of an organization with its environment. Over the past few decades, research on relations between organizations and their environment has been extensive (Karpik, 1978a; Kramer, 2007; Lawrence & Lorsch, 1967b; Pfeffer & Salancik, 1978; Weick, 2004). It has been directed towards trust and control issues, internal

organizational arrangements, external organizational arrangements, power differences, and so on.

It goes without saying that, with a few exceptions, organizations always have to relate with their environment. They cannot survive *without* their environment and often exist *because of* their environment. This often applied notion of environment, which is a rather abstract notion, refers to both a problem and a reality. “A problem because it concerns the study of the reciprocal relations between the internal and the external and a reality which ill lends itself to analysis, moreover, as it appears to be arbitrary, residual and undifferentiated. The organization’s boundaries are in point of fact imprecise, and the environment encompassing all that is not part of the organization combines a great many heterogeneous phenomena, and we can never hope to enumerate them all” (Karpik, 1978b: 15).

This quote of Karpik touches the essence of his perspective on theorizing on organizations which comes down to a strong believe in the specificity of both the organization and its environment and that generalizations on either one of them will therefore harm reality (Aiken & Bacharach, 1978). A reality, in terms of Karpik, that can be observed from either a formal or substantial perspective. With a formal model he is referring to more general concepts such as complexity and uncertainty. Concepts that can be detached from, and used independently of, observed realities. The substantial, and more interpretive, model is more concerned with “a particular set of analytical tools with a particular set of questions” (Karpik, 1978a: 3). This study takes a stance towards a more substantial model. A model in which specific circumstances play such an important role, that they cannot be denied or underestimated. This favor towards ‘historical conditions’ is, what is now more or less obvious, influenced by Karpik, who stated that “social realities are not interchangeable and, consequently reciprocal relationships between organizations are determined by regulatory mechanisms and transformational principles specific to the economic or the politico-administrative spheres [...]” (Karpik, 1978a: 3).

To substantially investigate the object under study, thereby taking into account these specific spheres, not only the micro-political exchange processes within and between organizations are considered, but also the macro-environmental pressures that often shape these processes. It is necessary to explicitly state here that with micro-political exchange processes within organizations, the focus is on coordination between organizational members related to outward influencing and not on influencing processes within organizations.

2.2.1 Logics of Action as Analytical Tool

Zooming back in from the organization-environment relationship, the focus now shifts towards the object under study: the organization. Considering a project an organizational form (de Man, 2004), this study builds on Bacharach et al., who stated that organizations comprise reciprocal social exchange relationships based on dependence (Bacharach et al., 1996). Such relationships exist when an actor's outcomes are contingent not just on his or her own behavior but also on what other actors do simultaneously or in response to the actor's behavior (Bacharach & Lawler, 1980). Especially when studying influencing, these exchange relationships are at the core of the research focus. Therefore, this thesis zooms in on the specific goals and the specific means organizational members bring to the exchange relationship, including their rationale to consider specific goals or to tactically use specific means.

To investigate the overall organizational process of influencing, logics of action provide a useful analytical tool. Logics specify what means and ends are considered legitimate, they specify which actors have the authority to enable and constrain the possibilities of other actors, and they specify criteria for effectiveness and efficiency (Lounsbury, 2002: 255). Logics mediate between external stimuli and internal mental structures to produce routine behavior (DiMaggio, 1997). In essence, a logic of action may be seen as the implicit relationship between means and ends underlying the specific actions, policies, and activities of organizational members (Bacharach et al., 1996: 478).

The theoretical function of logics as instrument of analysis is twofold. First, differences between social units in organizations can be observed; logics are principles of regrouping and dispersal. And second, the relation between the organization and its members can be analyzed; logics of action are principles around which individuals and groups organize their attitudes and behavior (Karpik, 1978b).

Referring to the first theoretical function, logics are being used to differentiate between organizational units. Although the actual deeds are observed at the individual level, logics can be perceived as a group phenomenon. These group logics unfold when organizational members develop a common shared idea about means and ends through socialization processes and daily interaction (Bacharach et al., 1996; Harris, 1994; Lawrence & Lorsch, 1967a; Reger, Mullane, Gustafson, & DeMarie, 1994; Weick & Roberts, 1993). Literature on the organizational mind suggests that both groups and the individuals that comprise these groups base their actions on a common set of means-ends logics. Based on these findings, Bacharach et al. state that "to the degree that all organizational members are

members of organizational subgroups (e.g. labor, management) with their own unique interests and means-ends calculations [...], we can also speak of the logic of action as a group phenomenon" (Bacharach et al., 1996: 478). The differentiation is based on entities that are created by the observer himself. By using logics, groups can be designated based on degree of coherence within these groups. These differentiations can be made between organizations within one industry or between units within an organization. This choice depends on the level of interest of the researcher. In case of this study the focus is directed towards the intra-organizational differences. With reference to the logics of action (perhaps logics of influencing would be more precise), not only 'action' is observed, but also the means, ends and the underlying structures, processes and authority relations that shape and influence this 'action' are taken into account.

The second use of logics of action is focused on the analysis of the relation between the organization and its members, groups, or hierarchical layers. This allows us to observe the organizational structures (related to outward influencing) and the processes that occur within these structures. Furthermore, if differences in logics of action occur between hierarchical layers, it is important to know how organizations deal with these differences. In that perspective the concept of 'alignment' must be mentioned. According to Bacharach et al., exchange between two or more parties is only possible if their logics of actions are aligned. Referring to this study, this means that ends are only obtained if the actors involved are able to align their goals (when interacting with project partners) or if means of one actor is not inconsistent with means or ends of another (in case of intra-organizational differences). With "not inconsistent" Bacharach et al. mean that the means of Party A do not logically prevent the pursuit of Party B's ends and that Party B's ends do not prevent the pursuit of Party A's means. "Thus, although Party A and Party B may have different logics of action, the alignment of their logics allow for mutual dependency and consequently ensures the possibility of an exchange relationship" (Bacharach et al., 1996: 478). It is important to conclude that these alignment processes⁴ occur *within* organizations to establish an atmosphere in which differences of action between layers do not hamper the overall organizational goal. Furthermore, these processes occur *between* organizations when the pursuit of ends and the interdependency of project partners bring 'Party A' and 'Party B' together.

As mentioned, the subject of this study is influencing and as such a concept is needed that grasps the full notion of this specific subject. Therefore, a third reason to choose this

⁴ Alignment in this study does not refer to verbal efforts of individuals to restore meaningful interaction when faced with cultural differences (Stokes & Hewitt, 1976) or to processes to align organization's ideology with individual's interests (frame alignment processes) (Snow et al., 1986).

analytical tool is that the theoretical content of logics of action adequately resembles the definition of influencing. Where influencing is perceived by the notions of ‘ability’ (or means), ‘activity’, and ‘goals’ (or ends), a logic of action may be seen as ‘the implicit relationship between means and ends underlying the specific action, policies, and activities of organizational members’ (Bacharach et al., 1996). It therefore covers all aspects of the influencing process.

2.2.2 Transformation from ‘Instrument of Analysis’ into ‘Object of Study’

When considering means-end frames, including their underlying rationales and the observable action of organizational members, figure 5 is a simple representation of logics of action. Logics of action are displayed as a box, representing a complex whole of the implicit relationship between means and ends underlying the specific actions, policies, and activities of organizational members. In addition to organizational influences such as structures and authorities, environmental pressures also affect logics of action. Referring to the specificity of environmental factors, these factors are represented by the blue box, indicating contextual influences, in this case the specific influences of NPD projects.

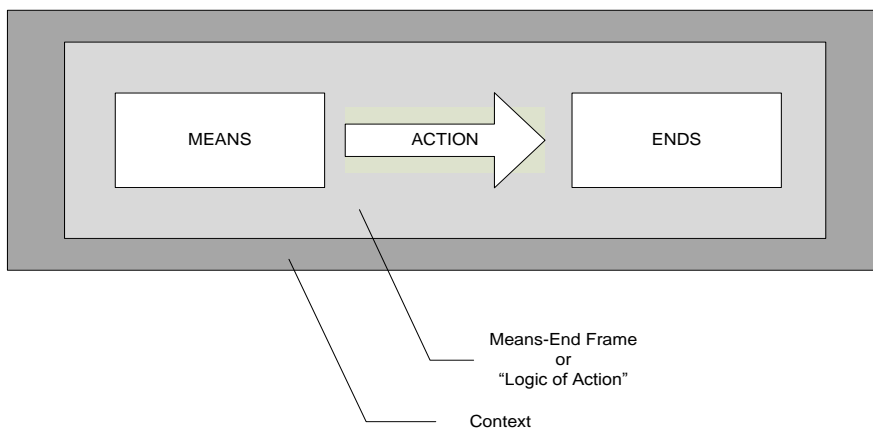


Figure 5: Means-Ends Frames

As Karpik indicated, logics of action are instruments that can be shaped by the researcher. However, at a given moment in time an actual differentiation can be made between organizational units, based upon these specific entities. These differences are then observed in the way they influence the organizational, outward influencing process. This means that the function of logics of action transforms from being an instrument of

analysis into an object of study. Based on research by Bacharach et al. (1996) and Dougherty (1992), it is assumed that logics can differ per hierarchical level or organizational unit. These differences have their impact on processes of an organization, including organizational influencing processes. How these differences influence this process, however, is still unclear. Visualizing the findings of Dougherty and Bacharach et al., it comes down to multiple means-end frames within an organization. This can be represented in horizontal differences between organizational units as marketing, production and R&D departments (Dougherty) or in vertically differentiations between hierarchical layers, as studied by Bacharach et al. (figure 6).

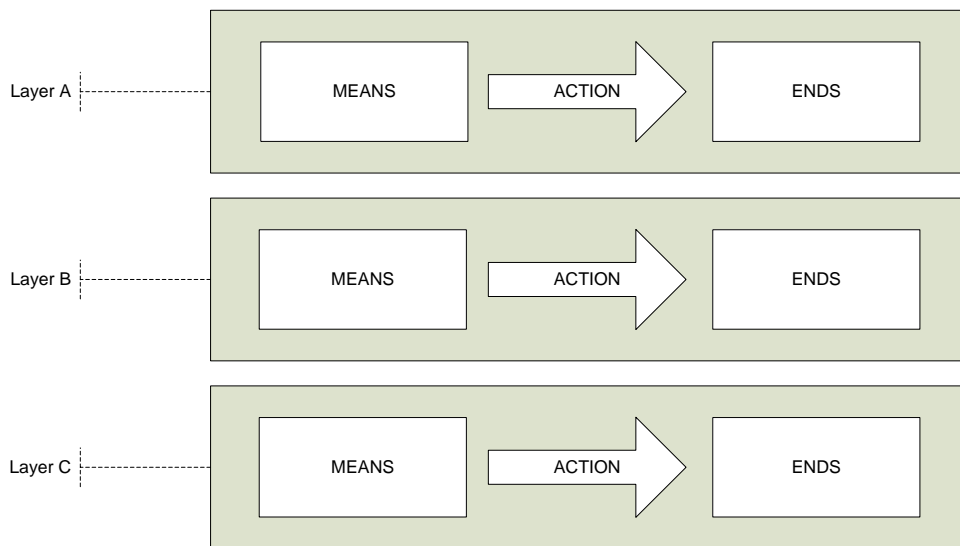


Figure 6: Multiple Means-End Frames within Organizations

If these insights in logics of actions are combined, an initial, integrated conceptual model can be developed (figure 7). This model includes multiple logics of actions, environmental influences of NPD projects, and organizational influences (represented by the triangular/trapezium boxes). The arrows on the right side represent the effect of these organizational activities: outward influencing.

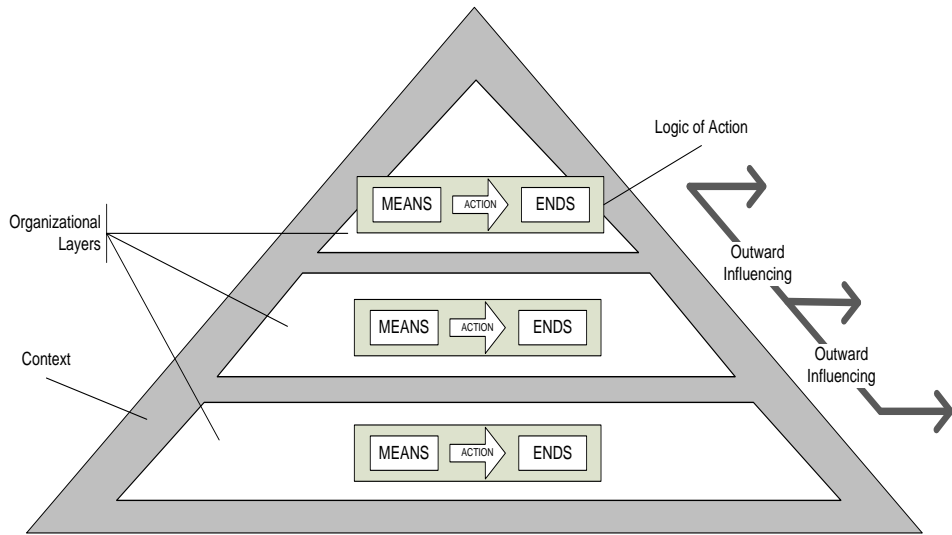


Figure 7: Conceptual Model

Characteristics of NPD projects will be discussed in the following chapter. This section is followed by the means that are considered when interpreting influencing processes. Next, the means are linked to the ends organizational members pursue, and the tactics they use to accomplish them.

2.3 New Product Development: An Introduction to Context

To interpret influencing processes it is important to incorporate the context in which these processes unfold. In other words, what is influencing the influencing processes? For this thesis, these specific processes are positioned within New Product Development (NPD) projects. These projects are considered the dominant drivers in many industries; the development of new products often counts for more than fifty percent of annual sales in innovative sectors like the automotive, biotechnology, and pharmaceutical industry (Schilling & Hill, 1998). In contrast to being important for sales, NPD projects are also accountable for high failure rates (Stockstrom & Herstatt, 2008). In short, NPD projects are of eminent importance in many industries, but they do have their down sides. The importance, complexity, and uncertainty of NPD projects and the ever growing number of these projects (Moehrle & Walter, 2008) contribute to the decision to focus on NPD projects as a context for influencing processes. However, as influencing processes are the subject of this thesis, the most important reason to choose NPD projects is that in these settings influencing processes are most likely to occur. Especially due to the impossibility

to precisely specify a future product outcome in combination with the presence of a (often) wide variety of partners, each with their own interests, make these projects an outstanding context to study influencing processes. The aim of this section is to clarify what NPD projects are and to make clear how the NPD domain influences organizational outward influencing.

2.3.1 Defining Projects

Before moving into detail on the characteristics of new product development projects, it is necessary to define projects. Although many definitions exist, most have four characteristics in common: projects are a set of activities; projects have a specific start and end; projects pursue a specific goal; projects are constrained in terms of time, budget, and product specifications (Kenis, Janowicz-Panjaitan, & Cambré, 2009; Nokes, Major, Greenwood, Allen, & Goodman, 2003; Wysocki & McGary, 2003).

Although most scholars and practitioners agree on these characteristics, the number of activities gives rise to some disagreement. As projects are defined as a set of activities, these activities can be labeled as projects themselves. The coordinated management of a portfolio of projects is then labeled as 'program management' (Reiss et al., 2006). Acknowledging the difference in scope of managing programs or projects, it is the level of aggregation that defines whether a 'set of activities' is a project or a program. The context of this study, the NH90 program, can be considered a project when following the definition, while it also constitutes many different projects dispersed over several organizations. For the sake of readability (not constantly repeating the word 'project') and with the definition in mind (portrayed in a set of characteristics), this study refers to the context of the cases, the NH90 program, interchangeably as project and as program.

2.3.2 The Fuzzy Front End: The Influencing-Enabling Phase

Product development is the process by which an organization creates an entirely new product that either adds to an existing product line or occupies an entirely new niche, or when it modifies or updates an existing product. New Product Development projects are considered vital for a wide variety of industries (Cooper, 2001), but are also accountable for high failure rates and by that, for decreasing organizational profits (Griffin, 1997). Both factors have contributed to an extensive field of research in this specific domain to better understand the uncertainties and complexities of NPD projects and, building on that, also

to provide for more efficient and effective processes to enhance the success of NPD (Stockstrom et al., 2008).

Although several phases in a NPD process can be distinguished (Harmancioglu, McNally, Calantone, & Durmusoglu, 2007; Schilling et al., 1998), the pre-development phase, or 'fuzzy front end', is considered to be the phase in which most progress can be gained (Stockstrom et al., 2008). The quality of activities in this time frame of the project has the most impact on the subsequent phases. Put differently: in this important period, the greatest differences between winners and losers were found (Cooper & Kleinschmidt, 1994). The importance of the fuzzy front end also relates to the fact that it is this phase that determines what products will be developed (Kim et al., 2003). Additionally, it is mostly during the pre-development phase that quality, budgets, and time scales are defined. When this is done incorrectly, unclear goals and poorly defined end states may lead to substantial delays (Kim & Wilemon, 2002). Stockstrom and Herstatt refer to a large-scale German study (Bullinger (1990) in Stockstrom et al., 2008) illustrating that almost one third of the total development effort is affected by incremental, and often unnecessary changes. However, even if much effort is dedicated at the start phase of a project, it still is very hard to imagine, and even harder to define, the end-state of a product (or process), especially when new concepts, materials, processes or technologies or a combination of either one of them is used. Presumably, every project manager would like to live in a project management Walhalla, in which everything is clear and specified in well-defined contracts, but in real-life this often is not the case. And although research on the fuzzy front end of NPD projects is relatively scarce (Moehrle et al., 2008; Stockstrom et al., 2008), it is because of reality that this thesis zooms in on the situation *after* the pre-development phase, where partners have already been selected, the product has been defined (as precise as possible) and the process is following its incremental path, step by step. Especially the difficulties and uncertainties in the first phase leave room to maneuver for the partners involved. This is where the influencing processes emerge. But before turning to the influencing process, one should consider the complexity of NPD projects, because complexity characteristics of an NPD project determine to what extent these processes can unfold.

2.3.3 Complexity in New Product Development

So far, the concept of complexity has been frequently used in this study. As in other studies (Kim et al., 2003; Mote, 2005), it has been depicted as an antecedent for performance problems, budgetary overruns and scheduling problems in NPD projects.

However, complexity is a rather general concept. According to Karpik (1978a), this would result in a formal perspective on a concept that can be detached from observed realities. However, for this study, this theoretical concept is used to observe reality and to analyze differences in context. It is from this perspective that complexity as a concept is used.

To fully understand what complexity in the context of a NPD domain means and how it influences the influencing process, it is necessary to zoom in on this specific topic. The goal of this chapter is to illustrate the complexity of NPD projects and thereby to portray the context of outward influencing processes in the NPD domain.

2.3.4 *Sources of Complexity*

The impact of complexity on NPD projects is not completely undisputed. This has much to do with the complexity of the concept itself. As an example, Larson and Gobeli (1989) found that complexity in terms of number of departments involved in a NPD project is positively related to project success. Mote even suggests that Larson and Gobeli's study, among others, is "indicative for the general consensus surrounding the positive impact of complexity on productivity in R&D settings" (Mote, 2005: 96). This analysis may be valid, it can also be considered a too simplistic representation of the relation between cause (complexity) and effect (increased productivity). Mostly because productivity can be observed in different ways. Katz and Allen, for instance, introduced 'time', 'budget', and 'product' as project performance indicators (Katz & Allen, 1985). These indicators are commonly used (see for instance: Kim et al., 2003) and will also direct the analysis of this thesis. The effect of complexity should therefore receive detailed consideration and a more precise classification. Focusing on complexity as a cause, the number of departments or disciplines involved in a project, or organizational complexity, albeit an important one, is not the only characteristic affecting NPD projects. Kim and Wilemon, for instance, stated that complexity "comes from a variety of sources and each source can impact NPD differently" (Kim et al., 2003: 19). They identified six sources of complexity that NPD projects may endure during the entire process: technological, market, development, marketing, organizational, and intra-organizational complexities.

Technological complexity is in fact a combination of two distinct factors. *The integration of components* is one of those factors. Products, and even services, are composed of parts, subsystems, and components (Henderson & Clark, 1990). One could state that the more components are needed to assemble a product, the more complex a product becomes. This process becomes even more difficult when not only hardware parts needs to be

integrated, but when – as is increasingly the case - different types of components need integration, like the combination of hardware and software. Well-known examples of products that require a great deal of hard- and software integration, are computer products, mobile internet phones, car safety systems, and military satellite observation systems.

In addition to the component integration, *technological newness* adds to technological complexity. The introduction of new materials or production technologies may undoubtedly result in novel, competitive and improved products, but the understanding of all this ‘newness’, especially during the start-up, is often poor and may result in ambiguity about how to deal with problems that will unfold during the development process. Studies that attempt to provide insight in the relation between newness and complexity, however, offer contrasting results (See for instance: Griffin, 1997; McQuiston, 1989). Although these contrasting results may be attributable to differences in measurement and situations, it is noted that newness *may* lead to complexity, albeit not on a rule-like basis (Griffin, 1997). Moreover, the change from one technology to another is not just a change of mind or purely a management decision and then ‘that’s that’. It also involves new skills and a new knowledge base (Kim et al., 2003). A clear example is provided by Kim and Wilemon by acknowledging these difficulties while, for instance, migrating from traditional distribution channels to internet based channels. It involves new skills, new knowledge bases, new logistical processes, et cetera and it involves a whole array of new features that is affected by technological newness. Furthermore, the integration of new components can in itself be a technological novelty as well as the fact that using new technology may lead to new component integration. So, in conclusion, it is the combination of component integration and technological newness that is affecting the degree of technological complexity.

The second source of complexity, *market (environmental) complexity* is highly related to the concept of uncertainty. According to Kim and Wilemon, the unpredictable changes in market related factors, such as variability of market standards, the reaction of competitors, and the change in customer needs, all contribute to an increased forecasting difficulty. Researchers and developers that find themselves developing technologies sensitive to these changes are most likely to be affected by these changes. The importance of environmental complexity has been studied extensively (Lawrence et al., 1967a, b; Mintzberg, 1979). Especially the information processing requirements within organizations to deal with this form of complexity increases in accordance with the growth of environmental complexity. Although this study is not focused on organizational requirements to cope with this form of complexity, environmental turbulence does have a major impact on influencing processes. This is mainly due to the fact that an increased

forecasting difficulty increases the probability of open-ended contracts. These contracts leave room for influencing processes to all the actors involved. Closely related to market complexity, in this perspective, is development complexity.

Every development team encounters complications during an NPD process. *Development complexity* refers to the difficulties that have to be dealt with during the development process (Iansiti, 1993), not to the complexity of the product itself or how difficult it is to assemble the product (technological complexity). During the process, many decisions have to be taken, ranging from which supplier to choose to what devices to use to where or how to test the product, et cetera. The product that is the result of this line of decision taking is not necessarily as complicated as the process that produces it. A clear example is medication. The product itself is rather simple, while the experiments, development, production, and testing processes are often very long and complicated. As Kim and Wilemon stated: “integrating many different research decisions; the difficulty of forecasting how much effort and money and time will be needed to develop a new product; integrating components; assessing development process requirements; securing qualified suppliers; and managing supply chain relationships all contribute to complexity and, in some cases, are the result of complexity as well” (Kim et al., 2003: 20).

The fourth source, *marketing complexity*, refers to unfamiliarity with a new market when a new product is developed or to unfamiliarity with the response of an existing market to the new product. When new markets are explored, they ask for extra marketing test, different pricing policies, different distribution channels and sometimes even consumer education to get new clients accustomed to the new product. Especially when a product is incompatible with the existing standard, resistance of the users need to be overcome, which can result in high switching costs. Costs that can be displayed both in financial terms as in a time-to-market ratio. Focusing on the new product in relation to a (new) market, multi-function products (smartphones and tablets for instance) require different marketing responses, packaging solutions and pricing decisions compared with more simple single function products (Ahearne, Gruen, & Saxton, 2000). All these characteristics contribute to marketing complexity.

Products become more and more complex as a resultant of today's fast-paced and knowledge intensive environments (Kratzer, Gemünden, & Lettl, 2008). To develop and market these products, an increasing number of specialists is required (Hoegl & Weinkauff, 2005). When focusing on organizational structure, highly innovative companies are likely to have more specialists and, therefore, will experience greater complexity. This complexity stems from the fact that the task of organizing, communicating, and integrating these specialized departments grows exponentially with the number of

components of a product (Griffin, 1997). The increase of components, functions, technologies and interfaces and the corresponding specialists developing them, therefore, produces another complexity: *organizational complexity*. Kim and Wilemon stated that 'technology transfer success, which is critical in developing a product accompanied by new technologies, is also closely related to cross-functional cooperation and integration' (Kim et al., 2003: 21). Related to the subject of this thesis, Atuahene-Gima and Evangelista concluded that 'influence is germane in NPD because at its core NPD is about risk, ambiguity, and uncertainty, and is replete with functional conflicts caused by differences in perceptions and self-interests' (Atuahene-Gima et al., 2000: 1269). In that respect, organizational complexity is directly affecting the influencing process by providing cooperation and conflict between actors with different perspectives.

Literature on the topic of multi-team projects is often focused on differences between departments, for instance R&D and marketing departments (e.g.: Atuahene-Gima et al., 2000; Dougherty, 1992). Where Dougherty studied differences in perspectives between horizontally divided departments, Bacharach, Bamberger and Sonnenstuhl focused on the vertical relations within organizations (Bacharach et al., 1996) (and by adding another dimension, making organizational complexity more complex). They conclude, in line with Mintzberg (1980), that differences in perspectives (time, goals, budgets) between organizational layers do exist, but despite tensions and disagreements between these parties, a state of stability arises as long as the means and ends of the parties across the levels are not inconsistent.

However, although the involvement and support of the upper level echelons are often mentioned as an important characteristic for NPD success, the understanding of differences between hierarchical layers within organizations with regard to outward influencing is still rather scarce in organizational literature. This is remarkable, especially because in large-scale projects, several hierarchical layers of the organization contribute to the NPD influencing process. This contribution ranges from top to bottom and from mere participation to decisive decision making. This involvement becomes even more eminent when public partners are participating in large-scale projects. In that case, political involvement, and thereby extra (or at least different) organizational layers, contribute to NPD processes. The complexity that participating organizations bring to the NPD process is discussed in the following paragraph. So far, organizational structures, the number of functional groups, teamwork difficulties among groups, cultural norms and hierarchical differences in scope, are the factors that contribute to organizational complexity.

The sixth and final source of complexity distinguished here is *inter-organizational complexity*. Kim and Wilemon emphasize the necessity of cooperation between organizations. Or as they put it: “The technological bases of many industries are changing rapidly and unpredictably and the number of technologies from which companies can choose is growing dramatically. Thus, no single company today can research every relevant discipline the way many firms did in 1970’s and 1980’s” (Kim et al., 2003: 22). Additionally, they see a solution in partnerships between companies to overcome this problem of complexity. However, the number of partners involved and their variety have a substantial impact on the outcome of cooperative efforts (Klijn et al., 2003). Partnerships entail different characteristics that contribute to complexity: interdependency problems, conflicts, communication problems and the degree of formality and informality. To some extent these are similar to more intra-organizational complexity characteristics, but nevertheless they are often prominent in their existence. What could be added to this overview of characteristics, however, is the aforementioned public-private cooperation. Particularly because there is an ever growing number of relationships between public and private actors (see e.g. Kamensky, Burlin, & Abramson, 2004) and even more so, because these partnerships often find themselves located within another expanding area, the NPD domain (Moehrle et al., 2008). This issue is discussed in more detail in paragraph 2.4.

These six sources of complexities induce uncertainty. Not all complexities will submerge at every NPD project and probably not all to the same extent. Nevertheless, NPD projects engage some uncertainty. This notion is important for this research, since uncertainty plays such eminent role in inter-organizational cooperation (Das & Teng, 1998; Das et al., 2000). Due to the importance of context, insight in contextual factors that contributes to influencing processes adds to an understanding of these processes. The six sources of complexities are incorporated in the initial theoretical framework.

2.4 Public-Private Cooperation within the NPD Domain

Although there are many reasons to participate in networks in general (Oliver, 1990; Powell, 1987), for public authorities and private firms it mostly comes down to the ability to develop a product or service that neither the public or private actor would have been able to produce on its own (Klijn et al., 2003). It concerns specialized private actions with significant public benefits that calls for industry-specific competencies (Rangan et al., 2006). It embraces an extensive realm of product and service development in policy areas such as education and health care (Schaeffer et al., 2002), energy (Rosenbaum, 2000), transportation (Dunn, 2000), housing (Klijn et al., 2003) and many more. In most cases

both parties depend on each other, since public agencies lack specialized resources and therefore are not capable of developing specific goods (e.g. hospitals, prisons or military equipment), while on the other hand private companies depend on public authorities to acquire goods that are demanded for public interest only. Besides the link between specialized resources and public demand, political rationality also plays a significant role in the establishment of public-private partnering (Marks & Fry, 2007; Rangan et al., 2006). A tight relation between state and industry can set aside economic reasons to cooperate (Schmitt, 2000). These political motivations can involve reasons such as beneficial pay-offs by improving political relations with neighboring countries, securing employment by acquiring work share and the prevention of leakage of technological know-how (e.g. Schaeffer et al., 2002).

The problems in public-private new product development may emanate from the fact that cooperating parties have dissimilar backgrounds and belief systems (Sutcliffe & Huber, 1998), are accustomed to different structures, cultures (Barkema et al., 1997; Doz, 1996) and management styles (Alford, 2001; Lane et al., 1998). Referring specifically to public-private projects, problems of cooperation due to differences in ownership, ways of funding and modes of social control (Perry et al., 1988) are even more eminent. By bringing more diversity into the partnership, this also means a collaboration of interdependent actors with a wider variety of perceptions, interests and backgrounds. Adding to that, one could also mention the inherent contradiction in public and private goals. Whereas public agencies try to obtain goods and services for the benefit of a general public by spending their taxes, private companies are first and foremost focused on making profit. And again, a public, political rationality does not necessarily align with a more private, economic rationality.

These different types of complexity can be viewed from two different perspectives: the perspective of complexities *within* a functional group and complexities encountered *between* functional groups or organizations. Because the level of analysis is the organization, the focus is also on the context of the organization and not the context of the organizational layers within these organizations. Therefore, the focus of this study is on complexities between groups and organizations within a NPD context. How these complexities influence organizational behavior will be discussed in the next section.

Since the focus of this research is on outward, organizational influencing, a domain was sought in which this concept could actually be found. Therefore, this study zooms in on cooperative efforts in public-private partnerships. Most important is the distinction in goal attainment between public and private partners. Acknowledging this, and other differences between public and private partners, adds to a better understanding of

cooperation between actors with competing interests and different backgrounds. It helps to know what to expect when conducting data collection and data analysis.

2.5 The Impact of Complexity on NPD Projects: Organizational Behavior

Uncertainty is often the resultant of the six sources of complexity mentioned in paragraph 2.3. Uncertainty, defined as ‘an individual’s perceived inability to predict something accurately, either because lacking sufficient information or unable to discriminate between data’ (Milliken, 1987: 136), is a concept that reflects a NPD project’s problem of end state definition. The identification of six different sources of complexities that induce uncertainty sheds light on NPD projects as the context of influencing processes. The next step then is to relate these complexities to how they affect these processes. Complexity in NPD projects can have its impact on the quality of the product, it can lead to high learning and a cooperative culture, and it can create a competitive advantage (Kim et al., 2003). For this thesis however, the focus is on a fourth impact: the impact on organizational behavior. Especially because ‘NPD complexity can change organizational power bases’ (Kim et al., 2003: 23). Depending on the source of complexity, influence can drift from one actor to another due to perceived knowledge, expert power, or resource allocation. Although their listing of examples of power bases is rather limited, they acknowledge the tight relation between complexity and power bases and, by that, on influencing. As this latter topic is the subject of this study, the use of Kim and Wilemon’s classification and additionally the identification of their six sources of complexity contribute to a better understanding of the context that directs the organizational outward influencing processes.

In sum, to identify the influencing processes of organizations it is necessary to identify the power balance, or shift in power balance, by studying the different sources of complexity in a specific NPD domain. The activities of the organizations involved will thereby be enabled or constrained by the power bases that shape the influencing processes within NPD projects.

2.6 From Context to Subject

Building on the insights of complexity, open ended contracts, and maneuverability, organizations are able to act strategically to serve their own goals when opportunities arise that have to be dealt with and that are not covered by contracts or other formal agreements. Opportunities that also *could* not be covered by these agreements due to the human inability to foresee the future. This notion of seizing opportunities does not necessarily need to conflict with partner cooperation. According to the definition of Das and Teng, partner cooperation is “the willingness of a partner firm to pursue mutually compatible interests in the alliance rather than act opportunistically” (Das et al., 1998: 492). However, this pursuit also entails influencing the decision process from an egocentric point of view. Pfeffer defined these activities, which attempt to influence decisions, as organizational politics: “those activities taken within organizations to acquire, develop, and use power and other resources to obtain one’s preferred outcomes in a situation in which there is uncertainty or disagreement about” (Pfeffer, 1981: 6-7). This definition of organizational politics depicts a strong relationship between means (power bases), (influencing) activities and ends (goal achievement).

The strong relation between means, activities, and ends is a relation that is at the heart of this study. It is therefore required to gain a firm understanding of these concepts in relation to outward influencing. To accomplish this goal, the concept of influencing is discussed first. This is followed by influencing strategies and the means-end frames that they are based upon.

2.7 Influencing

This study focuses on influencing, a process considered one of the most important determinants of managerial effectiveness (Yukl, 1989; Yukl et al., 1990). Influencing has received a great deal of attention in the scholarly world. Related studies vary from the use of different tactics (Kipnis et al., 1980; Yukl et al., 1990) to the effectiveness of tactics (Falbe et al., 1992; Yukl et al., 1992), power sources ((French & Raven, 1959; Podsakoff & Schriesheim, 1985; Yukl & Falbe, 1991), and objectives (Yukl et al., 1995).

A striking similarity between these papers is that they all define the object of study, e.g. tactics, objectives, or power sources, but that they do not define the overall concept of influencing. This is remarkable as influencing is the main concept of these papers. The most obvious explanation why this may be common practice was given by Parsons who stated that it is “taken for granted (...) that there is no formal standardization of

terminology in this field, and that, hence, there is inevitably an element of arbitrariness involved in giving technical meaning to a term in such general usage as 'influence'. I make no apology for doing this, since in the social sciences the only alternative in this and many other cases is coining neologisms, the objections to which are overwhelming" (Parsons, 1963: 37).

A second explanation may lie in the fact that influencing could be considered, simply stated and by no means an effort of defining it, power in action. And despite longstanding interest in power, scientists have not yet fully succeeded in developing a univocal definition of power. This lack of unity is foremost explicable by the very nature of power as a concept (Dahl, 1957; Haugaard, 2002). In the case of power, this means that when the concept is used in different contexts, its meaning may change accordingly. Changes that make it impossible to constitute a univocal definition in the first place and, accordingly, make it impossible to be applicable in every single context. The concept of power should therefore be seen as a tool that, like plumbers, doctors and builders do, can be applied for purposes for which they are most useful. These tools are then used as a means to assist the author to achieve the goals he has in mind: most often to portray his reality towards his readers. It is up to the author to explain the context and with it, *his* definition of the concept of power. Or as Haugaard states, that such authors have to bear in mind "that they are not writing about power in general but using power as a local conceptual tool (...)" (Haugaard, 2002: 3). However, to facilitate mutual understanding of what is at the heart of this research a clear description is needed. In line with the use of a concept as a tool and, in case of this study, to build a foundation that is capable of guiding this study from theory to analysis, the definition of Pfeffer is used. The working definition of influencing then becomes "those activities taken within organizations to acquire, develop, and use power and other resources to obtain one's preferred outcomes in a situation in which there is uncertainty or disagreement about" (Pfeffer, 1981: 6-7). The only addition to be made here is that 'those activities' are facing outward to complete the definition of *outward* influencing.

2.7.1 Current Literature on Influencing

Due to the widespread use of outsourcing, networks, alliances and project organizations, individuals increasingly gain access to other organizations. It is generally acknowledged that influencing counterparts plays a significant role in a reciprocal relation between different organizations and that the use of the right influence tactics at the right moment contributes to a large extent to the effectiveness and success of a manager (Bass, 1990;

Vecchio, 2007; Yukl, 1989). The use of these tactics within organizational boundaries has been studied extensively (Yukl c.s. Kipnis c.s.). This is in contrast to research focused on influencing methods that cross these boundaries and that are oriented towards external organizations (see for an exception: Gupta et al., 1999). Due to this lack of empirical research on outward influencing behavior, it is necessary to turn to what we have learned about influencing behaviors *within* organizations to gain some insight in what patterns to expect (Gupta and Case, 1999).

2.7.2 *The Different Tactics of Influencing*

Extensive research has been conducted towards the activities managers use to influence their peers, subordinates or superiors. Within the psychological research domain, these actions are called tactics. One of the most influential studies in that area was conducted by Kipnis, Schmidt and Wilkinson (1980). In their study among 165 part-time business graduate students, they reported a total of 370 influence tactics used. These tactics were sorted into 14 categories. Because of the empirical or conceptual overlap of the tactics in these categories, a factor analysis finally brought the total amount of tactics down to eight: assertiveness, ingratiation, sanctions, rationality, exchange, upward appeal, blocking and coalitions. An overview of influence methods presented by Schilit and Locke (1982) gave an almost identical list, only adding 'manipulation' and 'adherence to rules' to their list. Surprisingly however, in that same study, conducted among 173 graduate students (two samples) they identified a total of 18 different tactics.

The last study mentioned here is the research conducted by Yukl and Falbe (1990). Their objective was to see whether additional types of influence behavior could extend the research by Kipnis et al. (1980). They left out blocking and sanctions that were used in the original Kipnis et al. study. They also left out the sanctions scale, because most of the sanctions were not proactive influence attempts, but mere reactions that followed upon something the target had already done. The blocking scales were left out because of infrequent use. This was something that Kipnis and Schmidt already acknowledged in their 1988 study (Kipnis et al., 1988). In line with research on managerial leadership, Yukl and Falbe (1990) included two tactics that appeared to be important additions to the Kipnis et al list: inspirational appeal and consultation tactics. Two years later the list was synthesized by adding 'personal appeal' as influence tactic (Yukl et al., 1992). This adds up to the list presented in table 2. This overview includes the definitions related to the tactics. Although there does not seem to exist a general agreement between scientists in this area about a definitive and complete list of influencing tactics used by managers, this

study will rely on the list published by Yukl and Tracey in 1992. Even though it is almost 20 years old, it is one of the latest overviews published, and also one of the most extensive ones with a considerable overlap with earlier published results.

| Influencing Tactics | Definition |
|-----------------------|--|
| Rational persuasion | The person uses logical arguments and factual evidence to persuade you that a proposal of request is viable and likely to result in the attainment of task objectives. |
| Inspirational appeals | The person makes a request or proposal that arouses enthusiasm by appealing to your values, ideals, and aspirations or by increasing your confidence that you can do it. |
| Consultation | The person seeks your participation in planning a strategy, activity, or change for which your support and assistance are desired, or the person is willing to modify a proposal to deal with your concerns and suggestions. |
| Ingratiation | The person seeks to get you in a good mood or to think favorably of him or her before asking you to do something. |
| Exchange | The person offers an exchange of favors, indicates willingness to reciprocate at a later time, or promises you share of the benefits if you help accomplish a task. |
| Personal appeal | The person appeals to your feelings of loyalty and friendship toward him or her before asking you to do something. |
| Coalition | The person seeks the aid of others to persuade you to do something or uses the support of others as a reason for you to agree also. |
| Legitimizing | The person seeks to establish the legitimacy of a request by claiming the authority or right to make it or by verifying that it is consistent with organizational policies, rules, practices, or traditions. |
| Pressure | The person uses demands, threats, or persistent reminders to influence you to do what he or she wants. |

Table 1: Influencing Tactics
(Source: Yukl and Tracey, 1992)

2.7.3 *Directions of Influencing*

The ‘four faces model’ of Keys and Bell (1982) shows the directions towards which these influencing activities can be focused. The model differentiates between four directions: downward (towards subordinates), upward (towards superiors), lateral (towards peers within the organization), and outward (towards managers in other organizations). According to Keys and Bell, the most effective managers are those managers that are able to (exert appropriate) influence in all four directions. This study tries to increase knowledge about organizational outward influencing by learning from what we know about downward, upward, and lateral influencing.

Downward Influencing Tactics

Research on downward influencing is often positioned in management and leadership literature. A logical consequence of the situation from where superiors exercise their influence, which is from a power base based on legitimate authority. Despite the fact that they are enabled and entitled to reward and to exert coercive power, it is acknowledged that leaders are more effective when their leadership is based on expertise, knowledge, charisma or experience. An early study by Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) showed that hierarchical levels within an organization are related to the ability to use a more or less extended variety of means for social influence. Their research illustrated that top managers have a larger variety of means at their disposal than other supervisors, especially for coercive, reward and legitimate forms of influence. According to Kahn et al., all respondents, regardless of level, responded that they could equally use expertise to influence another.

Focusing on specific influence tactics, Vecchio and Sussmann concluded that no differences could be observed between top superiors and lower level superiors concerning preference for certain tactics. Noticeable however was that lower-level supervisors were more inclined to rely upon upward appeal tactics than higher level supervisors (Vecchio & Sussmann, 1991). Somech and Drach-Zahavy (2002) observed a tendency of supervisors to favor the use of facts and logic (rationality) and ingratiation to support their objective.

Upward Influencing Tactics

Upward influence: influence that is directed by subordinates toward their immediate superiors (Farmer, Maslyn, Fedor, & Goodman, 1997). This definition shows that their research is focused on influencing tactics directed towards *direct superiors*. Other studies

are less clear on this matter and only describe *superiors*. Yet this matter is of less relevance for this study as the participating actors in a project often possess an independent and in that sense equal status as they are not hierarchically related to each other. Farmer et al. (1997) mentioned that “interpersonal influence, in its many forms, is ubiquitous in organizational life” added by Kipnis et al. that “everyone is influencing everyone else in organizations, regardless of job title” (Kipnis et al., 1980). This means that not only subordinates are controlled and influenced by superiors, but that the opposite is the case as well, since the ability to influence decisions is not entirely dependent upon a formal position in the organization (Mechanic, 1962). Especially in recent situations in which organizations become flatter, organizational members become more dependent due to increased specialization.

According to Kipnis and Schmidt, “it is generally recognized that exercising upward influence is an essential aspect of organizational behavior and contributes substantially to individual effectiveness” (Kipnis et al., 1980: 528). To influence persons situated higher within the organizational hierarchy, the agent is unable to exercise formal power, based on authority related to his own hierarchical position in the organization as it is lower than his target. In their research on upward influence tactics, Kipnis, Schmidt, and Wilkinson (1980) found that respondents significantly more often tried to influence their superiors via self-presentation (being friendly, performing well), supporting data, or coalition (obtaining additional support). Ingratiation and rationality were the most frequently used tactics when influencing superiors. Research by Schilit and Locke (1982) showed that the logical presentation of ideas was the most frequently used technique in both successful and unsuccessful influencing attempts by subordinates, but few significant differences existed between the use of successful and unsuccessful influence attempts and the use of influence tactics. According to that, the results between the two samples they used were not consistent. The findings of Schilit and Locke, however, were in line with Yukl and Tracey’s findings. They also concluded that the logical presentation of ideas, or rational persuasion as they call it, was among the most effective way of influencing superiors (Yukl et al., 1992), together with consultation and inspirational appeal.

Lateral Influencing Tactics

Although the feeling is expressed that **lateral influence** attempts are ubiquitous and an important phenomenon in every organizational setting and that they are critical to managerial success (e.g. Enns, Huff, & Higgins, 2003; Gupta et al., 1999), this direction of influence has received relatively little attention. Yukl and Falbe (1990) and Yukl and Tracey (1992) found that both effectiveness and relative frequency of use for tactics was similar in all directions. Reflecting effectiveness outcomes of upward and downward influence

behavior, for lateral directed influencing, consultation, inspirational appeal and rational persuasion were moderately effective. In contrast, pressure tactics, coalition formation and legitimating are likely to be viewed as socially undesirable and therefore likely to be ineffective. These findings were partly reproduced in the research conducted by Enns, Huff and Higgins (2003) among Chief Information Officers (CIO's). Their findings concluded that rational persuasion and personal appeal related to peer commitment, whereas exchange and pressure related to peer resistance. (Inspirational appeal and legitimating was left out of their survey as these tactics were never mentioned in their initial interviews.) In general, most studies reflect similar results. The best summary of these findings can be put forward by a statement of Yukl and Falbe, who concluded that 'the big story is not directional differences but rather the discovery that some tactics are used more than others, regardless whether the target is a subordinate, peer or superior' (Yukl et al., 1990: 139).

2.7.4 Hard, Soft, and Rational Strategies

In addition to the division of tactics as described, individuals also use overarching, higher-order strategies. Studies on the division of these meta-categories are based on research findings reflecting an image of individuals using multiple tactics to influence their target (Falbe et al., 1992; Yukl et al., 1990). These strategies were coined 'hard strategies', 'soft strategies' and 'rational strategies' (Kipnis et al., 1984). **Hard strategies** are described as those where the influence agent perceives that he or she controls meaningful reinforcements for the target. This strategy can be exerted via different means. A first example is the use of legitimate, coercive or reward power sources, especially by superiors, in which case the agent can exert his power by punishing or offering rewards to his target (Somech et al., 2002). Hard strategies are often related to the use of authority and to position power (Falbe et al., 1992), but this is not always the case. Manipulative action, as the manipulative use of exchange, can be exerted in which case a subordinate is threatening to stop performing certain activities, or via upward appeal (Farmer et al., 1997), in which case he threatens to surpass his superior and allows himself access to a higher authority. Pressure and legitimating complete the list of hard tactics (Falbe et al., 1992).

A **soft strategy** of influence is less aggressive and can be depicted as more psychological manipulative in nature (Neale & Northcraft, 1991). This strategy is especially used in case the agent only has a little power or no power at all but still wishes to accomplish compliance with his target. The use of threats is replaced by tactics that portray the agent

as nice, smart or attractive (the tactic of ingratiation) or by the use of exchange (in a non-manipulative sense) by promising rewards the target will receive in the future if he complies with the agent's proposal. Ingratiation is only effective if the recipient has the assumption that the agent is actually willing to help and that this help is offered free of any exchange of other services. Other forms of soft tactics include consultation, inspirational appeal, and personal appeal (Falbe et al., 1992).

The use of rational considerations, facts, and logic are the most important activities when applying a **rational strategy** (Somech et al., 2002). The agent will present himself as knowledgeable and credible. Rational persuasion is one of the most applied and most accepted tactics for influencing others, regardless of direction (Somech et al., 2002).

Building coalitions as a means of influence has been the center of dispute for many years. This tactic is used by peers, superiors as well as by subordinates and was positioned in both the soft and hard strategy section. In the first case the coalition is used to put pressure on the target, whereas in the second case it is used indirectly by gaining additional support (Farmer et al., 1997). The most recent study of Farmer et al. (1997) positioned this tactic for the present as a hard strategy.

2.7.5 Organizational Means of Influencing

The last sections have been viewing influencing and its related topics from an organizational behavior, individual's point of view. This has been done to learn from the extensive amount of research that has been conducted in the scientific field of psychology. However, as this specific field is mainly preoccupied with the individual level of human activity, results of this research do not necessarily apply to the organizational level. Although research in the specific realm of organizational influencing is scarce, some useful insights are provided by studies in closely related areas. Ellersiek and Kenis (2007), for instance, have made an effort by developing a framework to analyze power relations in cross-sector relationships. In order to develop this framework, they conducted an extensive literature review in which they also incorporated power resources. Following the conceptual line of thinking based on individual influencing processes in the preceding paragraphs, one needs organizational resources to study organizational influencing. In this specific part of their study, based on a literature review, they distracted an overview of power resources available to organizations in cross-sector partnerships. Ellersiek and Kenis argue that sector related resources do influence a certain partnership, but their final

conceptualization only exists of 'the most commonly mentioned resource-concepts' (Ellersiek et al., 2007: 16), thereby making no distinction in sector-related resources.

Ellersiek and Kenis grouped their findings initially into three categories: institutional resources, socio-economic resources and "soft" power resources. First, institutional resources are closely related to French and Raven's notion of legitimate power and often comes down to the legitimate right to make decisions. This refers to Weber's notion of 'legal order' that can be perceived as "an additional factor that enhances the chance to hold power" (Weber, 1946: 181). According to Ellersiek and Kenis, institutional resources also entail informal authority, referring to the positions partners hold within a cooperative setting, or put differently, within a power-infrastructure (Huxham & Beech, 2003). However, these so-called informal authority relations are also considered in a formal way as they are sometimes pinned down in contracts, memoranda of understanding and other formal agreements (Das et al., 2000). Authority, both formal and informal, and legal rights together form the concept of institutional resources. Examples given include governmental status, hierarchical position, licenser status, property rights, and voting and veto rights.

The second concept, the socio-economic resources, is made up of a wider array of categories. However, according to Ellersiek and Kenis' literature review, only financial means were mentioned frequently, where the other means were referred to rarely. Production means (technology and machinery), human resources (availability of experts), management capabilities (management experience and cohesion of intra-organizational interests) and negotiation skills were bundled together to complete the list of socio-economical resources. Although these resources were found among organizations located in different sectors, the organizational capacities to execute them effectively varied between the sectors. Community organizations, for instance, seem to struggle both with the cohesion and organization of their interests (Ansell & Gash, 2007) and with the effectiveness in their decision-making processes due to a lack of skills and expertise (Korfmaier & Koontz, 2003). These examples are focused on differences *between* organizations within a certain sector. However, differences related to interests or expertise can also be found *within* organizations ((Bacharach, Bamberger, & McKinney, 2000; Dougherty, 1992). All these studies illustrating differences within and between organizations contribute to the image of the complexity of influencing processes when interests need to be promoted.

The last category is referred to as 'soft' power resources. It includes knowledge and expertise, reputation and social and political capital. According to Ellersiek and Kenis, these power sources can be designated to the organization itself (organization owned

power) and to linkages to other groups and organizations (social capital). Both are argued to lead to discursive legitimacy: when an actor has 'the ability to speak legitimately for issues or other organizations' (Phillips, Lawrence, & Hardy, 2000:33). Lobby organizations are a clear example of organizational representation. An example of issue representatives is Greenpeace. An organization regarded as speaking on behalf of the environment and capable of affecting public understanding, attracting media attention and pressure the government (Hardy et al., 1998:219). These soft power resources are often regarded as very important, especially for organizations that lack socio-economic resources (most often financial resources) and institutional resources, but in practice their influence seems more limited and context-dependent (Ellersiek et al., 2007: 18).

2.7.6 Influencing: Organizational Goals

Building on the working definition of outward influencing, it is necessary to depict what organizations aim for when interacting with each other. In other words, what are their goals? Much has been written on the concept of organizational goal for two reasons. First, because 'it is the dominating presence of a goal which marks off an 'organization' (usually refer to formal organizations) from all other kinds of systems' (Gross, 1969). Second, because the organizational goal is viewed as the criterion against which organizational effectiveness and efficiency is evaluated (Mohr, 1973).

In his definition of organizational politics, Pfeffer mentioned that actors try to obtain 'a preferred outcome' (Pfeffer, 1981). Although this is a logical and most obvious statement, it does not provide us with a helpful tool to analyze organizations and their activities to obtain those outcomes. For this, one can turn to Simon's work on the concept of organizational goals (Simon, 1964). In his paper, Simon perceives the decision making mechanism in organizations as a partially decentralized structure of loosely coupled units, each with its own sets of constraints that affect the respective organizational locations. This perception resembles Bacharach et al.'s notion of logics of action that may differ between organizational levels (Bacharach et al., 1996), or Dougherty's perception of differences of logics between organizational departments (Dougherty, 1992).

Within this perception of the organization and its decision making mechanisms, Simon considers goals as value premises that can serve as inputs to decisions. To solve any problem within a decision making process, it has to meet some sort of criterion. These requirements may range from financial constraints (budgets) to nutritional requirements (in Simon's own example of the optimal diet problem) to how the product looks like

(perhaps demanded by the marketing department) or any other requirement thinkable. It is then up to the decision maker to come up with a solution that satisfies all requirements. As this proves to be impossible, he or she can then opt for an emphasis on one of the criteria. By introducing one criterion as the final selection rule over another, this may also mean a shift in the primary goal. Introducing cost minimization, for instance, may rule out the best looking, or most advanced, product. Under these circumstances it would be reasonable to speak of “a whole set of goals – the whole set, in fact of, [marketing] and budgetary constraints – that the decision maker is trying to attain” (Simon, 1964: 6). A course of action, the decision-making situations in real life to be more precise, is only acceptable if it satisfies a whole set of requirements, or constraints. According to Simon, “sometimes one of these requirements is singled out and referred to as the goal of the action. But the choice of one of the constraints, from many, is to a large extent arbitrary. For many purposes it is more meaningful to refer to the whole set of requirements as the (complex) goal of the action” (idem: 7).

The separation of the organization in hierarchical layers, as opposed to the notion of the organization being a network node, is one of the key perceptions of network organizations in this study. Referring to this, there are various decisions within the organization that are made by specialized units within that organization. These particular decisions, made by specialized units do not solve the whole problem. What these units try to do, is to “find a ‘satisfactory’ solution for one or more subproblems, where some of the effects of the solution on other parts of the system are incorporated in the definition of “satisfactory” (idem: 16). Simon continues by stating that ‘the whole mass of decisions that are continually being made in a complex organization can be viewed as an organized system. They constitute a system in which (1) particular decision-making processes are aimed at finding courses of action that are feasible or satisfactory in the light of multiple goals and constraints, and (2) decisions reached in any one part of the organization enter as goals or constraints into the decisions being made in other parts of the organization’ (idem: 18).

To summarize the above, it is the set of constraints that constitute the organizational goals. However, this definition has not remained undisputed. Although it offers researchers some analytical tool to observe organizational behavior, it remains questionable what constraint is part of the set and what constraint is not. The constraints set that make up ‘organizational goals’ therefore may appear unmanageably large for research (Mohr, 1973). In addition, according to Mohr, Simon’s conceptualization “merely shifts the need for definition from the term ‘goal’ to the term ‘constraint’” (idem: 472). To overcome this critique on definitions of organizational goals, Mohr conducted a literature review on this topic. Starting point for defining the concept began by defining what is ‘organizational’ in ‘organizational goal’? Building on work from Etzioni (1964), Cartwright

and Zander (1960), Perrow (1961) and others, Mohr explicated that an organizational goal connotes 'collective intent', e.g. a consensus of intent. Consensus in this perception is viewed as an "explicit or tacit agreement among those concerned that a certain behavior will under the circumstances be followed, notwithstanding the possibility that some might prefer other available alternatives" (Cyert & March, 1963). This explicit addition was made by Cyert and March to distinct the preferences from individual organizational members from those of the organization. In addition to the 'organizational' part of the topic, Mohr turned to the 'goals'. Whereas Pfeffer already mentioned 'some preferred outcome' as the goal of influencing, many other descriptions of goals were explicated by Mohr.

One of the most applicable outcomes of Mohr's overview is a clear distinction between 'objectives' and 'activities'. This distinction is based upon Deniston, Rosenstock, and Getting's paper on the evaluation of program effectiveness (Deniston, Rosenstock, & Getting, 1968) and is of interest as it resembles the clear distinction this study tries to make between ends (Pfeffer's 'preferred outcome') and action. In short, they considered an objective as a 'state' or 'condition' of people or rather components of the environment of the organization⁵ that is deemed desirable for the program to attain. In short, an objective is a condition. In contrast, an activity represents some effort of personnel to bring that condition about. By stating that an objective is a condition, or state, one could ask 'a state of what?' Building primarily on Perrow (1968; Perrow, 1970) and Gross (1969), the general understanding then becomes that goals can be directed internally and externally: "a program and an organization may have two distinct types of goals: a 'transitive', externally oriented, or functional goal, and a 'reflexive', internally oriented, or institutional goal" (Mohr, 1973: 475).

Elaborating on these two distinct type of goals, it is important to note that transitive goals have their referent outside of (or in the environment of) the organization in question. Furthermore, its referent is a condition, not an activity, and in addition to that, it should be at the organizational level. "A transitive goal is thus an intended impact of the organization upon its environment" (Mohr, 1973: 476). Most organizations selling products or delivering services will find it hard to relate these activities (for instance selling cars or providing IT services) to transitive goals. These activities are not quite considered as having an 'impact' on its environment. However, it is the *program hypothesis* that these transactions will have a certain result: people become mobile,

⁵ Deniston, Rosenstock, and Getting (1968) define a program as an objective plus the collection of resources and activities organized to attain it. To exclude further semantical issues, the term organization is used here. An organization can be a program, but can also exist of several, connected or independent, subunits that act as programs. This notion of program should not be confused with programs that refer to a portfolio of projects.

people are informed, et cetera. These dependent variables are the transitive goals and, according to Mohr and Deniston et al., testing these hypotheses is what program evaluation is all about. Although this study is not particularly interested in program evaluation itself, it does benefit from the distinctions made between two types of goals. Elaborating on that, the focus can now shift towards the reflexive considerations.

Reflexive goals have also been called internally oriented goals, institutional goals, and support goals. These descriptions already depict a difference with the externally oriented, transitive goals. However, to specify reflexive goals, Mohr uses inducements-contribution theory by noting that 'inducements will be sufficient to evoke adequate contributions from all members of the organizational coalition' (Mohr, 1973: 476). For this study, this definition still remains too vague. Adequacy is referred to the ultimate survival of the organization, but less overarching goals, or reflexive subgoals, are also applicable within this categorization. Organizational prestige, growth, profitability and other goals that are more directed 'inwards', instead of having an impact on the organization's environment, would classify. Failing to construct an applicable analytical tool, this study defines reflexive goals rather loosely as 'inward oriented goals that benefits the organization, rather than its environment'. Mohr closes his theoretical findings by stating that reflexive and transitive goals are best considered coequal and that all the theoretical considerations just mentioned in no way imply that all organizations have both reflexive and transitive goals. It is important for researchers to accept this and to acknowledge that it is a dominance of reflexive over transitive considerations (or vice versa) in the decision making, that reflects the actual presence of one type of goal, two types of goals, or even perhaps the absence of any goal at all. (Which in the latter case one could argue whether to speak of an organization at all.)

An interesting notion to follow up on this topic is Deniston et al.'s distinction of proximate and ultimate goals. Placed within the transitive domain, they considered a 'transitive objective line': a program goal may always be rationalized by terms of some further objective. For example, a possible organizational goal of a defense materiel organization, such as 'to equip the military with the best defense materiel possible', may be seen as a subobjective of goals further to the right along the objective line, such as 'full military dominance at the battlefield within the entire spectrum of conflict'. This consideration is most important when reflecting on an individual's perception of organizational goals. Is it the immediate impact that the organization member reflects upon (the 'proximate goals') or does he refer to the 'ultimate' goal? This consideration mainly contributes to operationalization purposes.

To summarize the above, organizations can consist of several programs, or subunits, each with its own goals. These goals can be directed inwards (reflexive) or outwards (transitive). In the latter case it is important to rationalize the so-called transitive objective line. Although receiving some critique, this study holds on to the 'set of constraints' as a tool to analyze organizational goals, as it may reflect differences between organizational layers in the emphasis of certain requirements within this set.

2.8 Theory as an Analytical Tool

The introduction of this chapter indicated that the role of theory can be applied in three different ways: as a preliminary lead to design and data collection; as part of an iterative process of data collection and analysis; and a theory can be the end result of research. Building on insights derived from literature on logics of action, NPD projects, and influencing, this chapter provides an initial theoretical framework. Figure 7 and table 2 represent the findings from the literature research that will initially guide further design and data analysis.

Table 2 displays a summarized overview of the focal aspects, labeled as 'sensitizing concepts', that will guide research design and data analysis. The following chapter elaborates on the two other roles of theory: data collection and analysis, and theory as an end result.

| Focus | Dimensions | Sensitizing Concepts |
|------------------|------------------------|--|
| Context | Context and Background | <ul style="list-style-type: none"> ▪ Reason to participate ▪ Political background ▪ Industrial background <ul style="list-style-type: none"> - Complexities - Technological - Market - Development - Marketing - Organizational - Inter-organizational ▪ Program structure (NH90) ▪ Organizational Structure (Case) |
| Logics of Action | Means | <ul style="list-style-type: none"> ▪ Organizational means per level <ul style="list-style-type: none"> - Institutional Resources - Socio-Economic Resources - Soft Power Resources ▪ Personal means ▪ Means used by project partners |
| | Tactics | <ul style="list-style-type: none"> ▪ Strategic behavior per level <ul style="list-style-type: none"> - Rational Persuasion - Inspirational Appeals - Consultation - Ingratiation - Exchange - Personal Appeal - Coalition - Legitimizing - Pressure ▪ Strategic behavior organization ▪ Strategic behavior project partners |
| | Ends | <ul style="list-style-type: none"> ▪ Organizational goals per level <ul style="list-style-type: none"> - Reflexive - Transitive - Proximate - Ultimate - Set of constraints ▪ Goals of project partners ▪ Personal Goals |

Table 2: Focal Aspects for Empirical Research

CHAPTER 3

Research Methodology

Chapter 3 Research Methodology

Chapter one noted that despite centuries of interest in the subject of influencing, literature that directly and systematically deals with organizational outward influencing is yet to develop. As such, no theory was readily available to guide this study. However, as chapter two revealed, relevant elements extracted from influencing theory and NPD literature are highly beneficial as they generate insight in aspects that are strongly connected to the research aim. Chapter two focused on developing an analytical tool by integrating these insights. The notion of logics of action was then put forward as this notion combines the most important characteristics of organizational influencing and as such perfectly fits the requirements to serve as a conceptual lens/analytical tool. Since this research aimed to provide insights in the way organizations try to influence their NPD project partners, it is necessary to adopt a research approach that reveals a comprehensive picture of the NPD environment and which is able to develop a thorough understanding of the influencing processes at hand.

This study utilized a multiple case study strategy with an inductive logic to interpretively generate a descriptive and exploratory theory to understand the processes involved in the cooperative influencing efforts of organizational units in a NPD environment. This chapter covers the methodological considerations of this study. First, philosophical rationale of this research is explicated. This is followed by a description of the methods used for data collection and analysis. Next, issues about the validity and generalizability of this study are discussed. In conclusion, the process that transforms data into theory, for this specific study, is clarified. It is not the intention in this chapter to provide a comprehensive overview of existing research methods and philosophical paradigms. This chapter aims, however, to explain the adoption of the particular paradigm and methods used, to achieve the stated objectives for this particular research.

3.1 The Interpretive Research Approach

This study adopts an interpretive research approach. This approach can be considered a part of the qualitative research realm (Lee, 1991; Prasad & Prasad, 2002). For a thorough and just understanding of this approach it is necessary to consider an understanding at a higher 'level', at the philosophical mindset that guides this specific approach (Prasad et al., 2002). This mindset is also known as the interpretivist paradigm (Blaikie, 2000; Miles & Huberman, 1984; Prasad et al., 2002). In this section this paradigm is described and its prominent characteristics and strengths are discussed. These considerations are

contrasted with the positivist paradigm, the counterpart of interpretivism on the spectrum of research approaches (Klein et al., 1999; Lee, 1991). In addition, the way the interpretivist paradigm influences this study is described. This section finishes with answering the question why the interpretivist research approach is considered most appropriate for this study.

3.1.1 Interpretivism

Positivism and interpretivism are considered the main philosophical traditions in the area of research methodology. These two paradigms are considered opposites, based on different epistemological and ontological assumptions (Klein et al., 1999; Lee, 1991; Walsham, 1995). In the positivist approach, the ontological stance considers an entity as tangible and fragmentable and an objective perception of this entity is feasible and so is a best, unique way of describing this entity. The epistemological stance dictates that any given research object, whether it be in the natural sciences or in the social sciences, contains 'inherent qualities', disregarding the observant. In other words, there is no relation between the observed phenomenon and the researcher. An objective understanding is obtainable without getting involved in the phenomenon under study (Weber, 2004). This way, value-free research is considered feasible and, from a positivist perspective, the only genuine way to conduct science. It is believed that by using structured instrumentation and deductive logic, theories can be tested (Miles et al., 1994), thereby aiming at generating predictive understanding of the phenomenon (Lee, 1991). This phenomenon can be generalized without 'time' and 'context' disrupting the theory in new settings.

Positivism, however, has received some serious critique from many researchers. They argue that positivism is especially inadequate to study social and organizational phenomena and processes. This critique is based on the perception that positivism emphasizes temporal and contextual independency of observations (Lincoln & Guba, 1985; Mason, 2002), while in addition it completely disregards the central feature of organizational settings and processes: the presence and influence of humans and human intentionality (Moitra, 2008). The latter is a serious limitation of positivism because it produces research with human respondents but ignores their humanness (Ghoshal, 2005; Lincoln et al., 1985; Moitra, 2008).

In contrast to positivism, human intentionality is a fundamental facet of the interpretivist paradigm (Lincoln et al., 1985). It acknowledges multiple realities, in contrast to the

single, objective reality of positivists. Thus, within the interpretivist paradigm, reality is a social construction that may differ from one person to another (Berger & Luckman, 1991) and it is therefore believed that the researcher and the subject under study cannot be separated if one were to acquire a holistic understanding (Prasad et al., 2002). An understanding that stands in contrast to the notion of value-free inquiry (Lee & Baskerville, 2003; Lincoln et al., 1985; Orlikowski & Baroudi, 1991). By focusing on human intervention in organizational life, interpretive research can help researchers to understand human thought and action in social and organizational contexts (Klein et al., 1999). It has the potential to produce deep insights as it attempts to understand phenomena through the meanings that people assign to them (Orlikowski et al., 1991).

Interpretivism rejects discovering universal laws as the ultimate goal of conducting research. It regards each individual, group, and organization as unique, and as such idiographic theorizing is emphasized (Klein et al., 1999; Orlikowski et al., 1991). Building on the notion of the construction of reality by individuals and the importance of social interaction, by means of for instance organizations, norms, practices, and division of labor, interpretivism is “aimed at producing an understanding of the context of the [...] system, and the process whereby the [...] system influences and is influenced by the context” (Walsham, 1993: 4-5). In line with Karpik’s emphasis on the idiosyncratic nature of context, a thorough description of environments, circumstances, and backgrounds is of eminent importance in the interpretivistic domain. To attain this goal, a separate chapter is dedicated to portray the context of the cases.

In this research, the decision to opt for the interpretive approach was prompted by the state of extant literature on the topic of organizational, outward influencing, the focus on practice, and the intended contributions. Although influencing has received attention from scholars for over centuries, the attention is mostly is focused at the intra-organizational processes of influencing and, in addition, at a individual level. Existing literature that provides a comprehensive picture of what occurs within organizations, between organizational members, to influence extra-organizational groups is scarce. Notwithstanding the fact that existing literature on topics that are related to the main object of inquiry provided sensitizing concepts for this study, the absence of prior research that directly focuses on organizational influencing and the nature of the research aim, required an inductive research approach. This approach leads to an “understanding rooted in empirical reality, generatively built in a grounds-up manner” (Moitra, 2008: 108).

Furthermore, as the aim of this research suggests, analysis of practice was central to this study. It therefore becomes clear that in order to obtain an in-depth understanding of the

phenomenon of influencing, studying its instances enacted in specific organizational settings would be necessary. The phenomenon under study, influencing, is subjective in its own right and hence open to varying interpretations. To build a comprehensive understanding of the focal aspects of such a phenomenon, a researcher needs to assess the perceptions and meanings of organizational members. As this specific phenomenon may be influenced by its associated structures, processes, and systems, it is important to take these contextual factors into account. In view of these arguments, interpretative research was judged to be most appropriate for this study.

3.1.2 The Role of Theory in the Interpretive Research Domain

Within the realm of research methodology, there has been fierce debate whether or not theory should be used in inductive, interpretive research. Some scholars consider use of theory or theoretical notions as adherence to an inappropriate paradigm (Lincoln et al., 1985), while others argue that conducting a study without some notion of theory is impossible (Mason, 2002; Suddaby, 2006). The tension for interpretive research on how to use theory lies between the 'clean sleet', the open minded researcher that conduct his study without being biased or limited when observing, analyzing, or concluding on his findings. On the other hand, the initial decision to conduct this particular study has inevitably been prompted by personal interest and prior knowledge. This study treated theory as a guiding principle. Therefore, the conceptual lens developed in chapter two formed an essential part of the research design. The concepts, however, were refined, altered, or dispersed if emergent insights offered new ideas about the phenomenon under study. The theoretical framework effectively guided case selection and offered the building blocks for data collection. It furthermore served as an template during the initial coding processes and was instrumental in binding the multiple cases together during the cross-case analysis (Stake, 1995). Also, instead of clinging to a single theory, multiple theories at different aggregational levels were used that closely related to the focal aspects of this study (Suddaby, 2006; Walsham, 1995). The combination of multiple theories and their explanatory powers helped strengthen the ultimate conclusions reached (Van de Ven & Poole, 1990).

3.1.3 Generalization in Interpretive Research

Generalizing claims in experimental and statistical research are often stated explicitly as they "constitute the explanation/generalization schema that is the basis of scientific

reasoning" (Payne & Williams, 2005: 295). In qualitative research, and especially in interpretive studies, these statements are less explicit, to the extent that in some instances (interpretive) researchers minimize the relevance or even claim an impossibility of generalization in qualitative research (e.g. Denzin, 1983; Guba & Lincoln, 1994). Aiken and Bacharach also contribute to this perspective by stating that due to the particularities of organizations, or any social relation in that matter, generalization over more than one instance will harm reality (Aiken et al., 1978). Especially these particularities and the idiosyncratic aspects of every single case contributed to a shared view, both within the interpretive and positivist realm, that the emphasis in interpretive research should focus on thick description and that scientific contribution lies within the provision of rich insights. Recently, however, there seems to be a shift towards the opinion that interpretive research is more than just good description. A growing number of researchers try to expand the contribution of interpretive research by incorporating a generalization of their findings in their studies. The perception among these researchers is that generalization within the interpretive domain is possible, necessary, desirable and unavoidable (e.g. Mason, 2002; Payne et al., 2005; Williams, 2000). In line with this tendency towards generalization in interpretive research, Williams stated:

"If interpretivism is to be of any use of all in social policy formulation or evaluation, it must be able to say something authoritative about instances beyond the specific ones of the research. Generalization is both necessary and inevitable in interpretive research. Without it interpretivism is art and whilst art is a laudable activity, it is inadequate as a basis for policy action and for claims about what the social world is like." (Williams, 2001)

From here on it should be noticed that the kind of generalization that is to be obtained in interpretive research differs from that of positive or statistical research. In the latter it is a form of universal generalization, without time or context disrupting theory when applied in new settings. The aim of interpretive research is to deliver moderate generalization (Williams, 2000). With moderate generalization, also known as analytical generalization (Walsham, 1995), the inferences made are theoretical rather than empirical, which means that interpretivists "draw conclusions from their data about the necessary relationships that exists among categories of phenomena" (Williams, 2000: 218). The aim of generalization then is to establish theoretical linkages between aspects of various cases studies and to cases in a similar context.

"The issue of generalization in case studies is not one of statistical inference, as it is with positivist research, but with establishing

theoretical linkages between aspects of various case studies. The validity of extrapolation depends on the typicality or representativeness of the case but upon the cogency of the theoretical reasoning...and that case studies may be used analytically ... (only) if they are embedded in an appropriate theoretical framework. It is the richness of the detail provided by a well conducted case that develops insights that have resonance in other social settings, thereby, allowing theoretical connections to be explored and established.” (Macpherson, Brooker, Ainsworth, 2000)

With reference to Geertz’s seminal study on Balinese cockfighting, in which Geertz ‘tries to say something of something’, Williams argues that he does so by ‘inferring from specific instances to the characteristics of a wider milieu’ (Williams, 2000: 212)⁶. Moderatum generalizing links the idiosyncratic aspects of an instance to the nomothetic characteristics of a wider population.

3.2 Case Study Design

Studies within the realm of the social sciences are often concerned with intangible phenomena that most of the time are difficult to measure. A wide variety of concepts are exemplary for these phenomena, such as ‘political power’, ‘organizational culture’, or ‘economical strength’. In addition, these phenomena can also be perceived differently in dissimilar circumstances. The concept of power, for instance, may have quite another connotation in a military regime than it has in a hippy community. If something useful is to be said about such a concept it is necessary to place it in the right context. The ability to take these contextual factors into account and to examine a complex phenomenon in its real-life context, especially when the boundaries between the phenomena of interest and its context is somewhat blurred, are distinct characteristics of case study research (Yin, 2003). They help to acquire a thorough understanding of the context, structures, processes and contents of the object under study.

Furthermore, case studies are able to present thick description, identifying causal mechanisms, influences, and interaction effects (Jensen & Rodgers, 2001; Stake, 1995; Yin,

⁶ The study by Geertz is a detailed and dense description of Balinese cockfighting at a micro level of this specific culture. With reference to generalization from an instance to a wider population, William noticed that ‘the detailed description of a small part of this society is used to paint a picture of that wider society. The reader of the ‘Balinese Cockfight’ comes away with the feeling that he has learned something, not just of a particular ritual in Balinese life, but something of Balinese culture in general’ (Williams, 2000: 211)

2003) as case study researchers have the opportunity to elaborate on unexpected evidence in the course of fieldwork (Jensen et al., 2001). In addition, this thorough understanding of contextual factors, content and mechanisms, allows the investigator to incorporate conceptual refinements, enabling a higher level of validity over a smaller number of cases. This in contrast to statistical oriented research, which is prone to larger samples to conduct valid findings. As a final pro for case study research, this study refers to George and Bennet, who stated that “pure statistical research is not able of identifying new variables by inductive means” and that “inductive field research methods typically lie behind every newly identified variable” (George et al., 2004: 20-22). The case study method is particularly suitable for this study because it concerns a phenomenon about which little is known, the focus is on understanding the phenomenon of outward influencing processes in a real-life NPD context and the study tries to answer ‘how’ and ‘why’ questions, all in all with the ultimate aim to develop new theory (Eisenhardt, 1989; George et al., 2004; Miles et al., 1994; Yin, 2003).

To conduct proper case study research, nothing within the range of the field study is disregarded, everything is weighed, checked, and confirmed. The danger by doing so, is that there will be too many variables of interest for the number of observations to be made. As context is crucial in case study research, it is highly necessary to focus the case and to determine the boundary of the study in order to be effective (Eisenhardt, 1989; Yin, 2003). Various types of case studies can be recognized when distinctions are made based on ‘time span’. The focus may lie on a distinct moment in time (snapshot case study) or at multiple time shots (longitudinal case study). A research can also investigate the moment before and after a specific event (pre-post case study). Finally, a patch work case study involves a set of multiple case studies using a combination of the former approaches. Case studies can focus on a single case or on multiple cases. Where single case studies dig deep into a single case, comparative case studies entail multiple case studies of multiple entities for the purpose of cross-unit comparison. Case studies can entail various levels of analysis, even within a single study (embedded design) (Yin, 2003). Most case studies combine several data collection methods, such as archives, interviews and observations (Eisenhardt, 1989).

As formulated earlier in this chapter, an interpretive approach was considered most appropriate for this specific study. This study utilized a multiple case study strategy within this particular paradigm. Especially the ability to scrutinize multiple realities in order to theorize about complex phenomena favors the use of this approach (Moitra, 2008). In addition to the specifics of the interpretivistic stance of this research design, the next section explains the characteristics of the multiple case study design that is used to conduct this research.

3.2.1 Multiple Case Study Research Strategy

The reason for considering a multiple case study design as the most appropriate design basically comes down to the common advantages that are prescribed to this specific research design. In comparison to a single case design, patterns can be detected across classes and the phenomenon under study can be observed in different settings and environments (Jensen et al., 2001; MacPherson, Brooker, & Ainsworth, 2000). Multiple case study design is therefore often regarded as more compelling and the overall study results as more robust when compared to single case studies (Stake, 1995; Yin, 2003). According to Yin, multiple cases can be regarded as several experiments in a laboratory setting. Each experiment should then replicate or contrast the previous experiment. But where experiments are to some extent controllable in an isolated environment, e.g. the laboratory, a case can only be of significance when this environment is taken into account. It is exactly this context that 'makes a case' and therefore contributes to the case study in total. Like experiments, consecutive cases serve to replicate, contrast or extend emerging theory. The logic of replication is therefore central to a multiple case design. The replication logic can be divided into two distinct, but contrasting results. Literal replication aims at similar results of successive cases, while theoretical replication aims at contradictory results for predictable reasons.

The strength of case study design lies in the opportunity to offer thick description. Combined with the ability to replicate multiple cases, to compare across-cases and to choose contrasting cases, a multiple case study strategy contributes to an even more robust result. Thick description of empirical evidence enables the researcher to detect complementary processes and aspects of the phenomenon under study and by putting these patterns together, a more holistic understanding and a robust theory can be generated. In addition to the 'common advantages' of multiple case study design, already mentioned in the beginning of this section, there were two other reasons to opt for this specific design. First, as the macro-level of external influencing can only be understood by studying its micro-level instances, multiple cases needed to be examined in order to understand the full scope of this complex phenomenon. Second, since theory development was one of the key objectives of this study, the final results should be applicable to organizations on a broader scale than just the organizations that participated in this study. Thus, an in-depth insight of this complex phenomenon and the applicability of the research results were two key considerations of this study, that both were achieved by adopting a multiple case study design. A minimum of four cases is considered sufficient to obtain useful results from a multiple case study design (Eisenhardt, 1989; Stake, 1995), while much more cases might result in 'death by data asphyxiation' (Pettigrew, 1990).

With reference to the thorough description of all cases, this could count for both researcher and reader (Langley, 1999).

3.2.2 Unit of Analysis

Qualitative researchers often struggle with defining their case. What is in my case and what is the boundary of it? Or in other words: what's in and what's out? Abstractly, a case is a phenomenon of some sort occurring in the real-world and can only be understood within its real-life context (Miles et al., 1994). It is necessary to clearly bound this context to know what will *not* be studied. The case, in fact, is the unit of analysis. As was mentioned in the previous section, context plays a crucial role in understanding the specific structures, actions, and outcomes in complex phenomena. The aim of this study is oriented towards the outward influencing actions of an organization and in combination with the importance of context, a case definition for this thesis then comes down to 'an organization engaged in a New Product Development Project within a Public-Private cooperative setting'. As literature on projects and networks suggests, projects are relationships between two or more independent organizations with a combined interest in a certain outcome, set up for a limited timeframe after which the project will disengage (de Man, 2004; Nokes et al., 2003; Wysocki et al., 2003). The independency of the organizations involved, refers to decision making independency in the sense that they are not hierarchically connected within an organizational frame. Of course they are dependent on each other to the extent that their cooperation is contributing to the project goal for which they set up the project in the first place. During the process of developing a new product, multiple organizational units and hierarchical layers are involved in the process.

3.2.3 Case Selection Criteria and Replication Strategy

Unfortunately, it is impossible to study everyone, everywhere who is at least to a minimum extent involved in NPD projects. It is therefore necessary to restrict the collection of data. To transfer this consideration to this study, the problem with 'an organization' in the case definition is that this would imply all members of an organization, without regard to their actual contribution to the interaction with project partners. Administrative personnel, chauffeurs, catering personnel and many more may be part of an organization in general and all contribute to the organizational existence albeit to a more or lesser extent than others. However, this study is focused towards influencing

activities oriented towards NPD project partners. Data collection will therefore focus on organizational members that are involved in these processes. Most of them can be considered boundary spanners because of their connecting role they possess between their parent organization and the project partner(s).

In order to effectively conduct the process of purposive replication it is necessary to keep the initial research question in mind. This study is oriented towards influencing activities. It is mentioned in chapter one that if the focus is on this particular phenomenon, it is important to pertain situations in which both opportunities could arise that 1) enables these activities and 2) that differences in interest offer a motive for project actors to actually engage in influencing activity. To aid the process of case selection, four criteria are used: a public-private setting, new product development, a project setting and multiple layers within a single organization. First, a public-private cooperative setting is necessary if contrast of interests are important. Such a contrast is important in this research because if all partners, whether it are two, ten or hundred partners, have no disagreement on no matter what topic, influencing practices will not unfold and can therefore not be observed. The contrast in interest between public agencies on the one hand and private corporations on the other is mostly found in the fundamental difference in making profit on the private hand and spending public money on the public hand. By choosing a public-private contradiction, a higher chance of differences of interest are expected. The project setting is of importance to state the limited timeframe that organizations are connected to each other. If this was not the case, the organizational set-up would resemble a standard organization in which influencing activities were then intra-organizational oriented instead of external oriented. The orientation towards multiple layers reflects the realistic view towards the complexity of project management. In (nowadays) NPD projects, many different units and layers are involved. Organizational theory has made clear that different hierarchical levels possess different means and try to obtain different ends. Because of the importance of means-ends frames in influencing processes and the actual existence of interlocking activities between organizational layers, an intra-organizational multi-level perspective is needed to gain a better understanding of outward influencing processes.

Based on personal interest, professional constraints and opportunities, and theoretical contribution, a set of networks within a military R&D setting were identified. And although theoretical considerations have always been decisive in the carrying out of this research, pragmatic opportunities were helpful in choosing between options. In case of this study this meant that a project was chosen that involved the Netherlands as one of the main partners. Access to military premises was obtained via personal networks and a project was chosen that involved a personal interest, both in product as in process. From that

perspective this study resembles an intrinsic case study (Stake, 1995). The actual output of this particular project was a military helicopter and although the process of developing and building it was ‘packed’ with military abbreviations and operational terminology, this did not lead to any miscommunication due to the researcher’s military background.

In Yin’s seminal work (Yin, 2003), he proposed a 2 by 2 matrix, built up by two characteristics: the choice between a single case design and a multiple case design and the choice between a holistic perspective and an embedded perspective. This matrix is presented in figure 8.

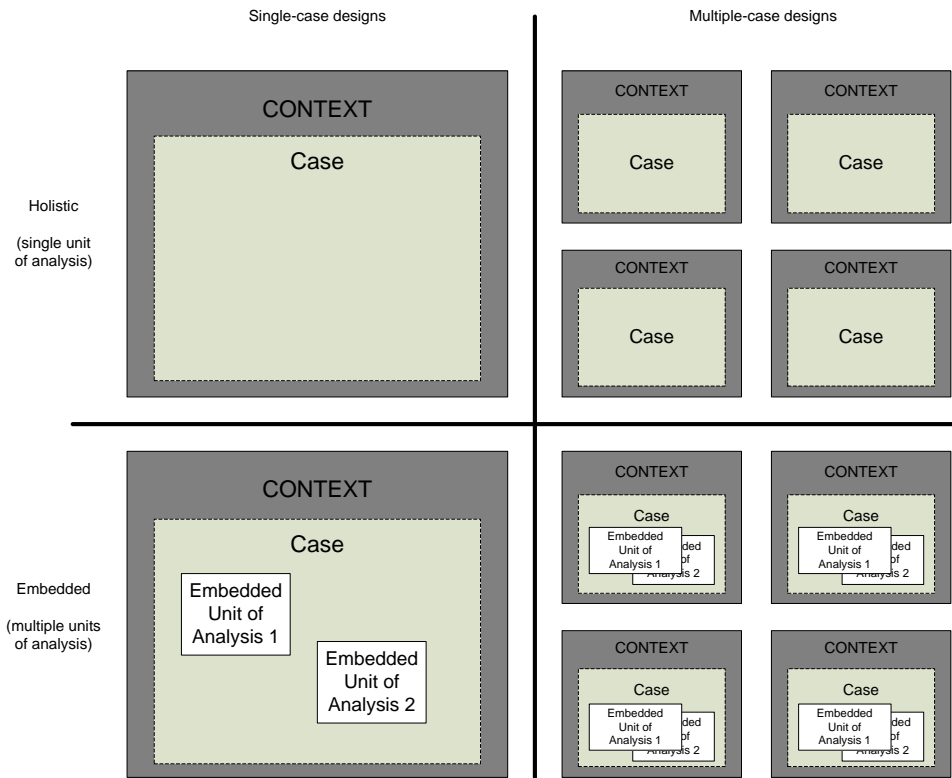


Figure 8: Basic Types of Designs for Case Studies
(Source: Yin, 2003)

The rationale for choosing a multiple case study design for this study has already been explained. The decision for a holistic point of view or an embedded design was more problematic. This was mainly imposed by the characteristic of the phenomenon under study, namely outward influencing. Due to the reciprocal nature of this specific activity

and because of the smaller numbers of people that are actually involved in boundary crossing activities it is necessary to involve the 'receiving ends' of these activities in the study as well. This has two distinct advantages. First, a more objective view can be obtained as the personal opinion of the respondents can be checked by others. This process of triangulation provides a more factual account of the influencing processes. Furthermore, respondents can be interviewed on topics concerning both their own activities as well as on their opinion of the activities of their project counterparts. It should be noted that interdependency between cases should be handled with great care. Due to the reciprocal nature of outward influencing in this study, however, interdependency is not only inevitable, the involvement of several cases within a single context therefore even seems a necessity.

With reference to Yin's matrix, this study seems impossible to locate in one of the four squares. The research question involves an organizational level perspective. If the organizations within a specific project were considered embedded units of analysis, the project itself would then be the case. And as mentioned, this is not the aim of this study. Although several organizational layers are recognized, they are not considered embedded units of analysis. Organizational layers always make up an organization by means of hierarchical relatedness, whereas units of analysis are viewed by different aggregational levels. For instance from industry to organization to group to individual. This means that an embedded perspective is not quite on the mark either. This leaves a holistic multiple case design as the only option left. The only alteration to be made to fit Yin's figure is the merger of the four contexts into a single context (NH90 program) with four cases (project members, see figure 4). Whether it is necessary to perfectly fit Yin's matrix altogether is questionable as most real-life, complex phenomena do not always survive simplification into simple models. An in-depth insight in complex reciprocal processes such as outward influencing activities prevailed over an enforced fit in a simplified model. Additionally, Dyer and Wilkins are promoting the use of several cases within a single context, by arguing that "[...] the more contexts a researcher investigates, the less contextual insight he or she can communicate" (Dyer & Wilkins, 1991: 614).

Cases in case study research are selected in order to better understand a certain phenomenon and at best these cases are representative for all other cases. It is something most researchers try to accomplish, but a sample of one or just a few cases is unlikely to be a strong representation of other cases. Case study research is not sampling research (Eisenhardt, 1989). Building on the notion of the replication logic mentioned earlier, this study conducts both a theoretical replication as a literal replication logic. Literal replication is performed by choosing two public organizations (the German and Dutch defense procurement offices) that both are so-called 'founding nations' of the NH90

project and because of that, both nations are part of the management agency (NAHEMA). In both cases, several organizational layers were involved in the project, ranging from operational engineers and controllers to the Minister of Defense. Both nations have to report their proceedings to parliament and both nations have their national defense industry involved in the project. This latter similarity is also the main difference between both cases as the German industrial contribution exceeds the Dutch industrial participation by far. Of course it is interesting to discover how this affects the influencing processes within the project.

The Dutch partner in the NH90 project, Fokker, is involved in this study for theoretical replication reasons. It is a private firm and as such it lacks a political apex in its organizational set up. From a theoretical point of view this project member, or case, should therefore have less means to influence other partners or exert different tactics to obtain their goals. The fourth case in this study is the NATO Management Agency. This agency is considered the administrative and legal joint venture of the four founding nations (besides Germany and the Netherlands these are France and Italy). NAHEMA is just like Fokker included in this study for theoretical replication reasons. Although NAHEMA is a public organization, it does not have a political apex in the sense that it has a Minister of Defense or a Secretary of State and in addition, NAHEMA performs a fundamentally different role than for instance the founding nations. NAHEMA can be considered a joint venture of the four founding nations and as such a representative of these nations. It is the task of NAHEMA to negotiate with the four nations to obtain a commonly agreed goal that benefits all members. In addition, the ability to maneuver and alter the initial ends, for instance during negotiation with the industrial partners, is relatively narrow, because all nations have to agree. From a theoretical point of view this would mean that the means and ends of NAHEMA should differ from those of the nations.

The unit of analysis of this research are organizations. For this study, the organizations are positioned in projects. The project as a contextual factor is fundamentally different from dyadic ties between organizations. Not only because of the fact that more participants are involved, but also because social constructions with three or more actors have their own quality, dynamics, and stability (Krackhardt, 1999), thereby separating research between dyadic and triadic (or multi-party) relationships. Referring to the research conducted by Krackhardt, triadic relationship means that the actions of different organizational layers are not all directed towards one partner, but that their attentions are dispersed over several partners within the network. This (research) context is given relatively broad attention in this study. The reason to do so is twofold. The first reason is based on the fact that there is an ever growing number of public-private networks in which organizations are going to participate (Kamensky et al., 2004). This development justifies a thorough

understanding of a research area that has received scant attention in organizational literature. Second, and most important, is the interpretative stance that to fully understand the phenomenon under study it is necessary to take its full context into account. In their theory of nested structuration, Perlow, Gittell, & Katz (2004) suggest a mutual relationship between organizational practices and the larger institutional context. They found that 'patterns of interaction and elements of the organizational context appeared to create a mutually reinforcing relationship, which itself, as an entity, appeared to be reinforced by elements of the larger institutional context' (Perlow et al., 2004: 532). Drawing on their findings and others, (e.g. Aiken et al., 1968), this implies an influence from the network on the organization. Since this research is focused on the way organizational layers cooperatively encounter network issues, organizational context plays a significant role in this process.

3.3 Data Collection and Analysis

The process of data gathering usually starts with deciding what data to collect, from whom and how, getting connected to respondents (in case of interviews) and actually collecting data by visiting the premises of the interviewees. This process can be divided into two different tracks: the first track is about the data collection approach and the method and the second track involves the actual gathering of data by securing access, visiting sites, and interviewing respondents (Moitra, 2008). The next section discusses both tracks.

3.3.1 Method and Approach

The goal of scientific research within the interpretivist paradigm is to interpret a social occurrence. The interpretation made by the researcher should enable him to produce a thorough and in-depth understanding of complex meaning structures. Structures that are developed by social actors in their own, particular environments. Put differently, an interpretive study seeks to construct an understanding of meanings, processes and structures, and norms that guide interaction, practices and motivations (MacPherson et al., 2000). In that sense, people and their interpretations and perceptions of social events are the principal data sources in this specific scientific paradigm (Mason, 2002) and for that reason interviews are the dominant methods for data collection. This specific method enables a researcher to best access a respondent's interpretation of his reality regarding actions and events (Walsham, 1995). According to Robson (2002), interviews are particularly useful when the interpretation of an individual or a process is to be studied in an organizational context and because of the importance of context for this study, both

because of the interpretivist approach and the specific subject of study, this study uses interviews as the primary data source. In addition, due to a lack of knowledge with regard to influencing processes within project environments, this method was the most efficient way to develop an understanding on this topic (Mason, 2002).

Focusing on the interview method, this study used semi-structured interviews with open-ended questions for gathering data. Although semi-structured interviews are thematic and topic-centered with a scripted set of questions, they still provide room to explore interesting items that can surface during interviews unexpectedly (Mason, 2002). The interviewer can alter the order of questions in a way that he/she seems most fitting and appropriate to the conversation and he is able to pose additional questions for a better understanding of unexpected items, to probe for emergent themes or to take advantage of special opportunities, depending on how the interview unfolds. By conducting semi-structured interviews, the interviewer can take these sideways, while the interview protocol guides the interview process by providing a road map that is focused on the main topics of interest. An interview can therefore be conducted in a flexible and informative manner, much like in a discussion (Gillham, 2000; Robson, 2002), while the primary topics of the data gathering process are not lost out of sight. Robson views these qualitative interviews as 'conversations with a purpose' that generate qualitative data. The actual conduct of interviews comes in different forms: face-to-face, by telephone, video-conferencing, with one or multiple interviewers and one or multiple respondents and of course any combination (Gillham, 2000).

To actually conduct the interviews for this study, an interview protocol was developed. Appendix A presents the final interview protocol. This protocol contained semi-structured, open-ended questions that followed several dimensions based upon the conceptual lens as developed in chapter 2. These dimensions are shown in table 2 in chapter 2. The first interview protocols were tested with experienced researchers and with three respondents who were involved in the NH90 project. This way, the protocol was tested from both a methodological and a content perspective. During the process, the protocol underwent minor alterations as our understanding of context and content improved. This freedom to make adjustments during the data collection process is considered a key feature of theory-building case research (Eisenhardt, 1989).

All the interviews were tape-recorded using a digital voice recorder. A major demerit of using these devices is that it makes the respondents more reluctant to talk freely and that their answers might be more politically correct. Although we can never prove that this was not the case, with hindsight, we do not have the impression that using voice recorders restrained respondents in their answers. After a few minutes, most interviewees seem to

forget the device at all, while some did not and actually warned us when batteries went low. An advantage of using recorders, is that it enables researchers to transcribe the interview afterwards word by word. These transcriptions facilitates data analysis to a great extent, because the researcher can then focus on what was actually said, not on the notes he made during the interview. There is a second advantage to this, because during the interview, the researcher can focus on the conversation, instead of focusing on making notes. For this study, we used two interviewers. The 'main' interviewer kept the conversation going, while the second interviewer was able to take notes and to reroute the conversation when it seemed to go beyond the necessary information that was aimed for. This second interviewer could also pick up interesting items that were missed by the first interviewer. The combination of these two roles seemed very functional in practice. The last advantage of using recording devices is that it enables researchers to playback the recording and 're-live' the conversation. This cannot be done with hastily written notes and it can be done as often as is needed. Overall, the advantages outweigh the disadvantages, and therefore all interviews were recorded.

The selection of respondents also needed careful consideration. Time is always limited when conducting research and therefore choices need to be made about who to talk to, who not to talk to and where to draw the line. It is an issue about framing the case and by that limiting the amount of respondents. The most important guidance for this specific data gathering issue is provided by the research question. The research question of this thesis brings up the notion of organizational influencing attempts and therefore the focus of this study was initially directed towards organizational members who were 1) directly and closely involved in the NH90 project and 2) who were in a position to influence counterparts, for instance during negotiations and board meetings. To grasp a thorough understanding of the complexity of a NPD project, especially because of the multiple organizational layers involved in NPD processes, respondents were sought ranging from the project level up to the political level. To qualify for an interview, respondents needed to work within the project for at least 6 months to have obtained a fair amount of insight in the political processes of the project.

Interviews often provide the most important data source in qualitative research, but they also entail an important pitfall. This drawback relates to the fact that respondents might be involved in impression management and retrospective sense making. In other words, according to Eisenhardt and Graebner, one might ask whether "the theory is not just retrospective sense making by image-conscious informants" (Eisenhardt & Graebner, 2007: 28). To deal with this problem, numerous respondents were interviewed. Most respondents were working for this project at the time of the interviews, while a minority had been working for the project in the past or had left the project for a few years and

then returned. The data even involved interviews with respondents that were no member of the 'case organizations', but for instance were member of one of the other project organizations. Such a diverse group of informants dispersed over levels and time, each with their own interpretations, helped to produce a rich and holistic perspective and revealed both a contemporary perspective on current organizational influencing activities and an additional in-depth view on organizational and contextual changes that the project endured. Furthermore, archived meeting minutes, parliamentary reports and paper articles were used as complementary resources for triangulation (Miles et al., 1994). This combination is believed to limit key informant bias (Eisenhardt et al., 2007).

3.3.2 Collecting Data

After the decision on how to engage the data collection process, using what method and the selection of cases, the phase of actual contacting respondents began. First contact was sought within the Dutch DMO, whose references we used to contact their counterparts. This way, a snowball effect was created. Together with a request for an interview, a research flyer was attached to inform the respondents about the research, its background, the researchers involved and the goals of the research. Some respondents requested to receive the interview questions in advance. Some reservations ought to be made with requests like these, because this could influence the participants' 'open mindedness' towards a specific topic. Furthermore, it is much harder to catch the interviewee 'off guard', when he prepared himself with politically correct answers. These respondents were then informed about our reservations, but a topic list of the main items that we would like to discuss was included in the reply. All respondents were satisfied with this. In addition with the request for an interview and the research flyer, the respondent was informed that all transcribed interviews were returned to the respondent to be reviewed for factual corrections and for final approval. Transcription were only analyzed after this final approval was received. The matter of confidentiality was discussed with the respondents before the interview. Especially high ranking officials like secretaries of state and ministers of defense are difficult to incorporate anonymously. By combining function and date, these officials can be tracked down easily. Respondents were asked to mention when confidential information was discussed. These parts of the interview were then left out of the transcription. This happened three times in total. Again, the respondents were also able to highlight parts of the transcription that they would like to be omitted. With 40 interviews in total, this did not happen once. For an overview of respondents, see appendix B.

The cases for this thesis are four partners within a NPD project. To be more precise: four partners in the NH90 project. This particular project consisted of more partners, but unfortunately not all organizations were willing to cooperate. From seven organizations that were contacted, four granted full access, one organization was unwilling to cooperate and two were willing to cooperate, but their factual cooperation was limited. These limitations were mainly caused by a repeated cancellation of interview meetings, personal unwillingness to participate, or to the limited number of participants that were allowed to participate. Although only a limited number of respondents from the Armaero and the DGA⁷ cooperated in this study, they did, however, provide very useful information, because their respondents, albeit a few, offered insights from yet another perspective and by doing so contributed to the holistic perspective as mentioned in the former chapter.

Beside the interviews that served as the primary data sources, secondary information was used to obtain a more in-depth insight in the companies involved and the relationships between them. These data sources consisted of meeting minutes, newspaper articles, parliamentary reports, company websites and the official NH90 contracts. These latter documents contained confidential information that could not be quoted literally, but they were informative nevertheless and the content could be published in generic terms. The organizations themselves also contributed to our data sources by providing internal documents or with a presentation about their organizational structures, procedures and assets.

3.3.3 Data Analysis

Interpretivists believe that an external reality only exists by human interpretation. This reality is given substance by meanings and interpretations of the actors within everyday organizational life. Their actions, their relations, and organizational situations, they are all depending on an individuals' perception to gain some meaning. In order to make sense of their organizational activities, actors have to interpret their activities together, and "it is these meanings that arise out of interpretation, embedded in language, that constitute their organizational reality" (Moitra, 2008: 125).

To conduct interpretive research, the process of interpretation is fundamental to make sense of this organizational reality. Within this process, the concepts of 'pre-understanding' and 'understanding' are vital. Within the interpretivists' paradigm, it is

⁷ The Armaero is the Italian Defense Materiel Organization, located in Rome. The DGA is its French Counterpart (Direction générale de l'armement) in Paris.

arguable that researchers can start with a *tabula rasa*, no 'pre-understanding' of whatsoever. Therefore, a researcher is believed to always bring some conceptions, prior knowledge, experience, or 'worldview' to any given (organizational) situation, including when conducting research. This is what is considered 'pre-understanding' (Weber, 2004). The pre-understanding of this thesis is presented in a more formalized manner as the conceptual lens developed in chapter two. According to Moitra, "in the interpretive process, the understanding gained serves as the pre-understanding for the successive rounds of seeking new understanding. Thus, the process of interpretation is an iterative and interactive process [...]" (Moitra, 2008: 125).

The actual data retrieved by conducting interviews, in its raw form of spoken words, are the pre-understanding of the respondents. It reflects their meaning and interpretation about organizational life and, when given some direction to the interview, about the phenomenon under study. This is what is called a first level understanding and refers to understanding by the informants themselves. When interpreting these data, the researcher moves to second level understanding (Lee et al., 2003; Walsham, 1995). A researcher can also move to a third level of understanding, when he or she juxtaposes similarities and dissimilarities between cases. This goes beyond direct interpretation of the individual cases. It involves the aggregation of cases until something can be said about them as a class (Stake, 1995).

Analyzing data began after every interview was completely transcribed. Transcription is a time consuming and laborious process (Walsham, 1995), especially since the interviews were transcribed to the letter, word for word. Although transcription took up a substantial part of the research time span, it contributed significantly to the outcome of this study as it promoted familiarity with the data, thereby catalyzing theoretical thinking which is, according to Walsham, essential to interpretation (Walsham, 1995). When the interviews were transcribed, these transcriptions were coded⁸. This process was initially guided by a start list of codes, retrieved from the conceptual lens developed in chapter two. While the coding process evolved, initial codes were redefined or discarded when they looked inapplicable or empirically ill-fitting. More satisfying, especially for the researcher, was the emergence of new codes, as it "uncovers important local factors" and "shows that the researcher is open to what the site has to say, rather than determined to force-fit the data into preexisting codes" (Miles et al., 1994).

⁸ Coding, attaching memo's, and marking quotes was done in ATLAS.ti. This is a software program for qualitative data analysis.

In practice, the codes were attached to words, sentences, and sometimes to complete paragraphs. Placing category labels to these ‘chunks’ is what is called ‘first-level coding’. The next step is second-level coding, or pattern coding. First and second-level coding should not be confused with a first and second level of understanding. Figure 9 illustrates the process of building understanding by interpreting data and the two levels of coding.

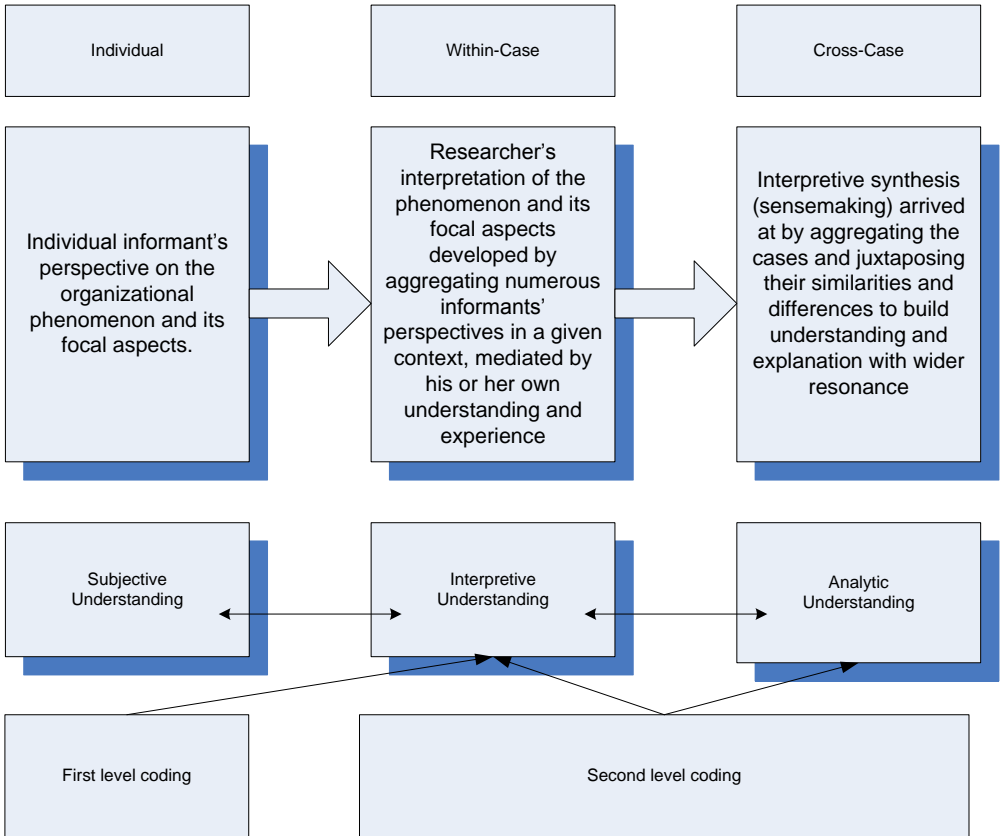


Figure 9: The Interpretive Process of Building Understanding and Explanation
(Adapted from Moitra, 2008)

First level coding is conducted to label data within an individual transcript. This coding process involves interpreting and giving meaning to data, thereby contributing to an interpretive understanding. By coding multiple transcripts and by identifying patterns across respondents and across cases, second level, or pattern coding contributes to both second and third levels of understanding.

Pattern coding was conducted to group the labels into a smaller number of sets, themes, and constructs (Miles et al., 1994). This helps the researcher to elaborate a cognitive map, an evolving, more integrated schema for understanding local incidents and interactions. Furthermore, it lays the groundwork for cross-case analysis by surfacing common themes and directional processes (Miles et al., 1994). During cross-case analysis, patterns were sought across the cases, thereby generating an understanding and explanation with wider applicability, beyond the context of the cases studies (Eisenhardt, 1989; Yin, 2003). To perform cross-case analysis, thematically ordered tabular displays were constructed. This facilitated the process of indicating differences and similarities across cases. This process in its turn led to new insights and with an emergent understanding of the phenomenon under study, an attempt was made to answer the research question of this study. The difficult part of this process was to “iteratively resolve the tension between the ‘local’ and the ‘global’ understanding and explanations” (Moitra, 2008: 129). In practice, it meant that this iterative process was only successful after a generic understanding emerged that was also able to illuminate the individual cases.

3.3.4 Quality of Empirical Research

It is not uncommon for interpretivists to state that “there is no fact of the matter” (Schwandt, 1990). Reasoning in line with this position suggests that it is not really possible to specify criteria for good qualitative work. Sometimes, listing outcomes by means of description, evaluation, or interpretation is even considered a legitimate result for qualitative research (Peshkin, 1993). However, this study agrees with Miles and Huberman that the researcher who renders account of qualitative research, by describing events of what really happened in a real life situation, can do so well or poorly (Miles et al., 1994). Qualitative research is therefore not unjudgeable.

Generally, four criteria are utilized to judge qualitative research: objectivity, that is concerned with the operational measures for concepts being studied; reliability, which concerns whether the process of the study is consistent, stable over time and across researchers and methods; internal validity, which concerns whether the findings of the study are credible to the people we study and to the readers; and external validity, where the main concern is to which extent the findings can be generalized to other settings (Miles et al., 1994; Yin, 2003). However, these criteria are rooted in the positivist paradigm. As depicted, due to their stance towards the ontological and epistemological rationale of positivism, interpretivists render these criteria therefore as rather pointless (Moitra, 2008; Prasad et al., 2002). Interpretivists do not believe in the fundamental

positivist assumption that an external reality exists, independent of human interpretation. In correspondence with its epistemological and ontological assumptions, interpretive research applies the criteria of confirmability, dependability, credibility, and transferability (Miles et al., 1994).

Confirmability relates to the question whether the conclusions depend on the subjects and conditions of the inquiry or on the inquirer (Miles et al., 1994). It therefore refers to corroboration and confirmation of the findings (Lincoln et al., 1985; Moitra, 2008). Interviews make up for a substantial part of the data gathering for this study.. Transcripts were always returned to the respondent for both confirmation and approval. Informant feedback is considered of utmost importance and member checking was included as an integral part of the research process (Miles et al., 1994). The position of the interviewer is salient in interpretive research. Posing questions based on a personal worldview could guide a respondents' reaction. Precaution for this to happen was taken by involving a second interviewer. This interviewer could rephrase a question if it included a personal meaning or worldview of if it would direct a respondents' answer into a certain direction. Both interviewers would also repeatedly ask for real-life experiences and concrete details. In combination with the fact that multiple informants from different organizational levels and from different organizations were interviewed, these real-life incidents could then be observed from multiple perspectives. This alleviated any key informant bias, that could be induced by 'retrospective sense-making by image conscious informants' (Lincoln et al., 1985; Miles et al., 1994).

Dependability can be described as 'quality control' (Miles et al., 1994). It is concerned with the reliability of the findings (Guba et al., 1994). To provide for a study that is consistent and stable over time, this study utilized a multiple case study approach. This enabled the researchers to state conclusions that are based on investigations of several instances of the phenomenon. Furthermore, the research design, methodology, and methods underwent multiple reviews, as were the research findings and interpretations. The reviews were conducted by my doctoral advisor, promoters, and by peer researchers. Also, an 'audit trail' was set up (Guba et al., 1994; Miles et al., 1994). Correspondence with the respondents, interview recordings, transcripts, and data analysis artifacts were archived. These systematic processes of empirical research and the use of proven methodologies should increase this study's dependability.

Credibility is concerned with the extent to which the findings make sense, how credible they are, and whether an authentic portrait of what we are looking at is presented (Miles et al., 1994). Four distinct types of understanding guided the evaluation of the credibility of this study. *Descriptive understanding* of what actually happened was provided by

context-rich and thick description. A separate chapter is dedicated to inform readers about the context of the cases and the finding sections are replete with quotes. The latter also increased the *interpretive understanding* as many of the quotes reflect how specific instances came about and what it meant to the informants. Theoretical understanding was increased by connecting actions and meanings to logics of actions. These means-end frames provided proven relationships between the different concepts that were at the core of this study. Evaluative understanding was enhanced during the process of data collection. The 'interpretive understanding' of the researcher was checked during additional interviews as the increased understanding of the phenomenon under study and its focal aspects enabled the researcher to approach the various items of interest from different angles.

Transferability concerns generalizability to other contexts (Guba et al., 1994; Miles et al., 1994). Building on section 3.3 on generalizing in interpretive research, this study aims for theoretical generalization. To accomplish this, this study utilizes a multiple case study approach. Furthermore, elaborate description of both context and cases should facilitate comparison with other contexts. Third, a sampling strategy was chosen to study theoretically distinct cases to permit generalization.

3.4 On Theorizing and Theory Development

The main research question and the corresponding subquestions direct this thesis towards the development of a process theory (Mohr, 1982). The importance of these theories in organizational studies (Van de Ven & Huber, 1990) relates to the fact that they are capable of elucidating concrete events in organizations and they are particularly appropriate for explaining dynamic phenomena such as innovation and change, strategic evolution and adaptation (Langley, 1999). In comparison with a variance theory, that focuses on the relationships between dependent and independent variables, process theory explains a phenomenon in terms of sequence of actions and events that lead to a certain outcome (Mohr, 1982). The key to developing a process theory then comes down to the understanding of patterns that lead to certain actions, events and, eventually, outcomes (Langley, 1999).

The process of understanding these patterns followed a line that starts with the stories, insights and explanations of the respondents. These narratives entail a significant amount of process data that embodies actions, events and time (Langley, 1999). It are these 'surface features' that are particularly useful for process theory as they hold the key for identifying generative mechanisms that drive the process (Moitra, 2008). The following

step after generating data is to reveal both the interpretations and meanings and the associated structures and organizing processes (Gioia & Pitre, 1990). This is done by identifying the underlying structures that lie hidden in the surface observations, or to put it differently, to move from description to explanation (Langley, 1999). Langley proposed several strategies to do so. For this study, the narrative strategy was used. This entails a thorough description of all cases, assembled from the raw data provided by the respondents, minutes, contracts and other sources. This narrative initially serves as the preparation of a chronology for the subsequent analysis. However, it moves beyond a mere chronology as it also incorporates a more analytical element within itself. In line with Pettigrew, the “(...) *analytical chronologies reach towards theory presentation, but are prepared to get on top of the data, to clarify sequences across levels of analysis, suggest causal linkages between levels, and establish early analytical themes*” (Pettigrew, 1990: 280).

CHAPTER FOUR

CASE DESCRIPTION

4.1 Introduction

The core of this chapter is a detailed description of the four focal cases: the NATO organization NAHEMA, located in southern France, the Dutch DMO, the German BWB, and the Netherlands based company Fokker. However, the impact of contextual factors plays such an eminent role that, to understand the influencing activities of the four mentioned organizations, an in-depth insight in this context is essential. Furthermore, the interconnecting activities of these four actors do not stand on their own. They are intertwined within a project in which they all play an important role. Not only as cooperating partners, focused at producing a product, but also as independent actors each with their own interests.

With reference to 'context', the four focal cases are not the only main actors in the project. Figure 2 in chapter one showed the public and private organizations that constituted the program from the beginning. The start-up of the program was initiated by a report, called 'NIAG SG14'. Based on this report, several NATO members conducted a feasibility study for a military helicopter suitable for 21st century warfare operations. This study then resulted in a memorandum of understanding, signed by France, Germany, the Netherlands and Italy, to actually design and produce the helicopter. To do so, they created an agency, NAHEMA, that acted as the representative body for these nations and as the contracting partner towards the private companies. These companies, selected from the four participating nations, are Eurocopter, AgustaWestland, Fokker and Eurocopter Germany. The companies founded a mirror organization of NAHEMA, called NATO Helicopters Industries, or NHI for short. It is a joint venture that acts as the representative of the four private companies. Together, these actors constitute the NH90 project, which stands for NATO helicopter of the 90's, and it is this project that calls for a thorough decomposition for an enhanced understanding of the context in which the focal organizations play their individual roles. To do so, the following section will focus on the rationale behind the project, on the actors, the structure, the product, and on the political-economical context in which the project took off in the late 1980's. This section is followed by sections that describe the four cases. Both the project description and the case descriptions are guided by the theoretical framing of chapter two. The project description and the case description focus on the complexities that the project in general

and the actors in particular endured and on the structural composition of the organizations as far as they influenced the influencing capabilities of these organizations.

4.2 Context: The NH90 Project

The initial start-up of the NH90 project took off in the late 1980's, when several NATO members expressed their need to replace their respective helicopter fleet with helicopters that were able to conduct military operations suitable for future military scenario's. The outline of the project directly stems from studies conducted by the NATO Industrial Advisory Group⁹ (NIAG SG14) and were operationally formulated in the NATO staff requirement. Common requirements among the participating nations should result in cost savings due to volume production and risk and cost sharing. From a political-economical perspective, several European countries also considered the opportunity to strengthen the European defense industry and by doing so, creating a counter balance against the American defense industry (Hayward, 1997: 35; Tweede Kamer, 1984-1985b). From this perspective, the work of the Independent European Program Group (IEPG) is worth mentioning. The IEPG is an initiative from European defense ministers and its activities are focused on establishing an equilibrium in defense related trading between the United States and Europe. It promotes European defense industry by cutting in and favoring national industries in defense procurement programs (Tweede Kamer, 1984-1985b). It is with this background that at the outset of the program, five countries took up the gauntlet and initiated the feasibility phase: The United Kingdom, France, Germany, the Netherlands, and Italy.

4.2.1 The United Kingdom: "Competition unless..."

The foregoing introduction of the NH90 project did not mention the United Kingdom as a founding nation of this particular project. It nevertheless is very informative to portray the short participation of the UK in the late 1980's and early 1990's. The political turmoil that encompassed the British involvement clearly exemplifies the interests that are at stake in complex projects like these, both political and economical and both on an international scale.

⁹ The NATO Industrial Advisory Group (NIAG) is a high-level consultative body of senior industrialists of NATO member nations, acting under the Conference of National Armaments Directors (CNAD). It plays an important role in advising the Committee of National Armaments Directors on key issues regarding armaments co-operation policy and the industrial and technological base of NATO.

Cooperation in general and the involvement of the United Kingdom in a cooperative effort as the NH90 in specific, albeit a feasibility study at that stage, suited the UK government's procurement policy in those days. According to Adam Butler, the UK Minister for Defense Procurement in 1985, it was "the purpose to improve the operational capability of NATO armed services through greater commonality. But it stems from the increasing cost of systems. One country is not capable of fulfilling all armed services' needs at a price they can afford" (Flight International, 1985a). In accordance with the initial set up of the NH90 project, the UK logic was to get more value for money by spreading cost of design, development and production among the partners. This political stance did, however, include two consequences. First, it meant that all partners would compromise on certain issues concerning timing and equipment. Butler stated that "programs which result in and stem from common requirements may eventually involve some compromise in the types of equipment which will end up with our Services. We are not only talking about performance, but also timing. It may be that one of the Services has to make adjustments in time to take advantage of longer production runs"(Flight International, 1985a).

The second consequence concerned the tie between industry and Government. The UK Government's policy was aimed at receiving more value for money through an increased use of competitive tendering (Thatcher, 1986). Butler said that they "[...] believe very firmly in the value of competition" and that the guiding principle is "Competition unless...". This principle, however, could lead to a decreased dependency on UK defense industries. Up to 1985, the UK Government awarded almost 95 percent of the contracts to their inland defense industry (De Fraya & Hartley, 1996), but based on the 'cooperation policy', the UK industry was to expect competition from abroad (Fligstein, 2006). As Butler stated: "It will be in the nature of things that we will be looking for more bids from overseas" (Flight International, 1985a). The Minister of Defense Procurement also expressed a line of thinking that was shared by several European countries (Fligstein, 2006) that is that every nation for itself should consider on what equipment it should focus. He said: "We have to be very realistic. We can't expect to make every item of equipment in this country. Should we persevere in all fields? Or should we take advantage of volume production in the USA providing better value purchases and the chance of offsets, [...]?" (Fligstein, 2006). These considerations of course represented a threat for UK defense industry, especially the helicopter industry. With reference to the NH90 project, Butler said: "Talking hypothetically, of course we would like to see the maintenance of a helicopter industry in this country, but if helicopters become twice as expensive as a result, we couldn't hope to" (Flight International, 1985a).

In those days, the British Royal Air Force (RAF) was seeking a replacement of their Wessex and Puma battlefield helicopters. The requirements for this new battlefield support helicopter was detailed in the RAF's 'Air Staff Target 404' (AST-404) and considered 75 to 125 new helicopters. Prospects were the French AS.332 Super Puma from Aérospetiale, Sikorsky-Short's S-70A Black Hawk from the United States and Ireland and the UK's own Westland W30-404 (Beavis, 1985). In February 1985, UK defense minister Michael Heseltine approved participation in the feasibility study of the NH90, adding this option to the shortlist (Flight International, 1985b). Meanwhile, the British Army was reassessing their requirements for a larger helicopter than the AST-404 required. This made the Anglo-Italian (Westland-Agusta) EH101 an option as well. In the light of making compromises and greater commonalities between the services by acquiring the same helicopter for all services, these reconsiderations made sense. However, reconsidering options also took time, meanwhile leaving the bidders with uncertainty. Particularly Westland, the UK based helicopter manufacturer, could benefit from an substantial order, especially considering the fact that in 1985 Westland was in the process of laying off 700 workers (Flight International, 1985b).

Westland and the European Perspective

Acknowledging the fact that losing its skilled workforce was at stake, Westland wanted to spread its risks. Together with Agusta, the company took part in the bidding process by offering the EH101 transport helicopter. It also participated in the feasibility study of the NH90 program. To put its competitor in a bad light, Chris Cook, Westland's representative on the NH90 industrial management committee, stated that the end result of the NH90 project would be an advanced helicopter and not a retarded Black Hawk (Beavis, 1985). Whatever happened to Chris Cook is off topic, but that things may turn around in the blink of an eye is undeniable: at the end of 1985, Westland accepted a bail-out deal from Sikorsky, resulting in Westland building Sea Hawks (the naval version of the Black Hawk) under license in the United Kingdom. Spreading its risk was a wise thing to do by Westland. Commenting on retarded Blackhawks and later having to build them themselves, probably was not.

The political turmoil that was induced by the Sikorsky-Westland deal, exemplifies the interests that are at stake in large-scale projects. Prime Minister Margaret Thatcher, together with the Trade and Industry Secretary Leon Britton, was in favor of the official policy that the UK Government "should procure its helicopters from the most cost-effective source" (Thatcher, 1986) and as a consequence, not necessarily from Westland. The Sikorsky bid, welcomed by the Westland management, was opposed by Heseltine who had a strong pro-European orientation. He favored a European solution, integrating BAe

(British Aerospace), Agusta from Italy, and several French companies with Westland. These European companies got to an agreement with the French, German, Italian, and British National Armaments Directors that the respective nations would not buy any helicopters in which Westland was involved when Westland would accept the Sikorsky bid. However, Thatcher's view was that it was up to Westland to make its own decision and not the Government's, and with that, the Sikorsky deal was done. Almost a year later, the UK withdrew its involvement in the NH90 project and chose the Anglo-Italian EH101, later renamed to AgustaWestland AW101¹⁰. Westland's Chairman, Sir John Cuckney was fiercely opposed to the decision to abandon the NH90 project. According to him the NH90 was a helicopter the UK ministry would eventually need (Flight International, 1987). Although frustrated that Westland would have to leave the NH90 program, his comment would be proven to be too early. Due to earlier cooperation in the EH101 project, parent organizations Finmeccanica S.p.A. of Agusta and GKN plc of Westland signed the agreement of a 50:50 joint venture company named AgustaWestland. In 2004, Finmeccanica acquired GKN's 50 per cent share in AgustaWestland, making it a full subsidiary from Finmeccanica. Due to Italy's involvement in the NH90 program, Westland was rerouted into the NH90 program again¹¹.

This later called "Westland Affair" shows several important issues concerning influencing processes in NPD projects. First, the political interests that directly influence a NPD program. In case of Westland the abandonment of the UK and Westland of the feasibility phase due to Governmental policies. It is not up to the user what product it is able to buy. It is a political decision that involves budget, industrial workshare, political relations, governmental policies, and among other aspects, also users' requirements. This matter pinpoints a second issue: the reassessment of requirements by the users throughout the project. These reassessments could result in a reconfiguration of the product or, as in the Westland case, total abandonment of the project. Third, the European orientation to establish a firm European defense industry footprint. Although this matter was not decisive in the UK decision, it was proven to be leading for other countries when making investment decisions. The creation of the Independent European Program Group (IEPG) is exemplary of the European impetus to rebalance the US-European defense industry scale (KST-19157-2). Finally, the intertwined relations between companies within the defense industry. Workshare is based upon a nation's investment in the program. As the matter of workshare is strongly influencing international and inter-organizational cooperation and consequently the NH90 program, it will receive further attention in section 4.2.4. The next

¹⁰ The name **Merlin** is used for AW101s in the British, Danish and Portuguese militaries.

¹¹ It needs to be said that Westland's involvement in the NH90 is strictly limited to the Agusta-Westland name. Due to strict work share agreements no new companies are allowed to join the programme as main contractors.

section will describe the European defense industry in general and the participating companies more explicitly, to better understand the context of the NH90 program and the relation between the companies and nations in this particular project.

4.2.2 Private participation in the NH90 project

The need to cooperate on defense projects and to focus on a nation industry's best practice was not the perspective of European governments alone. It was shared by the four European aerospace main manufacturers. At the start of the NH90 project, in 1985, Westland from the UK, Agusta from Italy, Aérospatiale from France, and MBB from Germany realized the urgency to merge in order to have a fair chance to compete with the American based Sikorsky helicopter manufacturer. Sikorsky's main advantage were the vast orders they received from the US Government. To give an example, in 1985 the US military was planning to buy 1.400 Black Hawks, 5000 to 7000 Seahawks (both in roughly the same class as the NH90), 5000 LHX and 1000 AH-64 Apaches (both helicopters performing roughly the same role as the PAH-2's from Eurocopter and A.129 from Agusta). The European off set in those days were a couple of hundred NH90's and a couple of hundred PAH-2's and A.129's. With more business than all European manufacturers together, Sikorsky only employed 12.400 people, compared to the 25.000 people in Europe (Beavis, 1985).

Consequently, in order to stay competitive, the European companies needed to cooperate. The Agusta-Westland merger was already mentioned. Their first cooperative attempt resulted in EH Industries, building a series of EH101 helicopters in several versions. In addition to this cooperative effort, Aérospatiale and MBB also merged, forming the Franco-German company Eurocopter. Both EHI and Eurocopter were set up to take advantage of common requirements, to cut development costs by sharing them and to gain access to larger markets. For the NH90 program, Fokker from the Netherlands joined EHI and Eurocopter to complete the teamed effort of the five nations. During the program, cooperation not only progressed in the realm of helicopter manufacturing. In 1997, defense industry executives from Britain, France, and Germany agreed that Europe's leading contractors should restructure and merge into a single company. It was considered the only way to survive a foreseen 25 percent decline in defense spending across the continent (Rothman & Landberg, 1997).

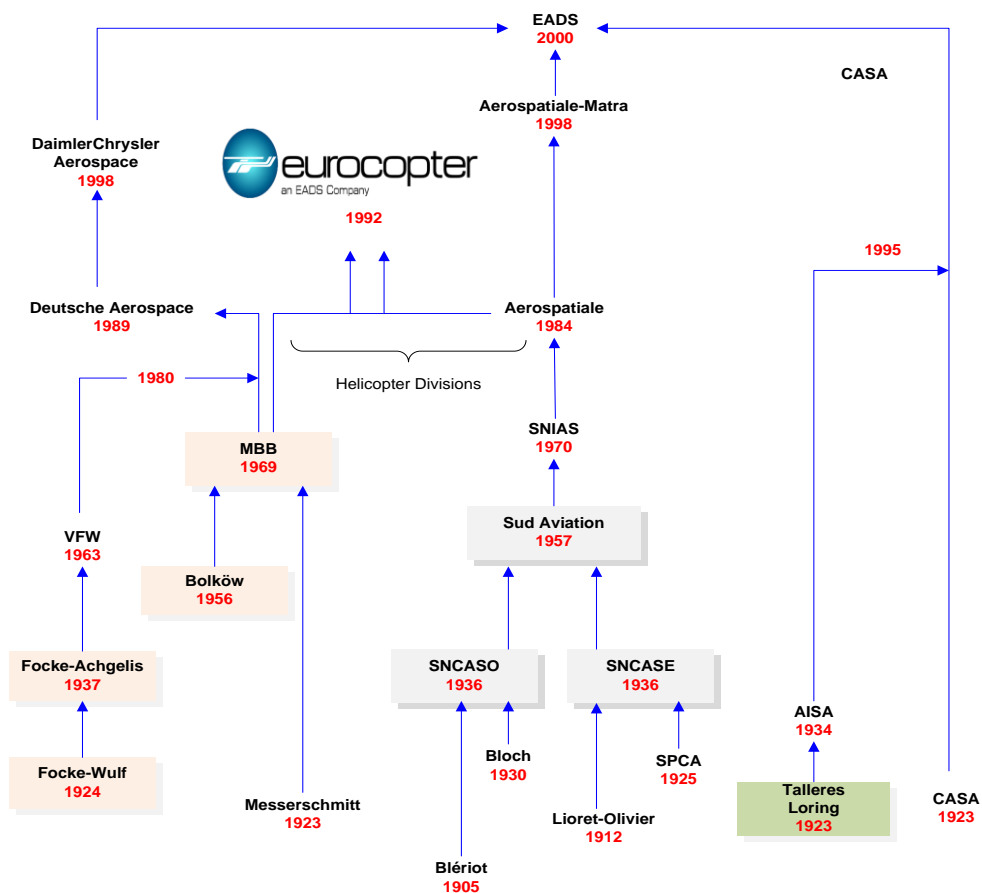


Figure 10: Mergers in the European Helicopter Industry
(Source: www.eurocopter.com)

Within a few years CASA, Daimler-Benz and Aérospatiale-Matra merged to become EADS, the European Aeronautic Defense and Space Company. Figure 10 presents an overview of the organizational mergers within the European Helicopter Industry, culminating in aerospace giant EADS. EADS earned 43 billion dollars in revenues, employed almost 120.000 workers worldwide, and is headquartered in the Netherlands. Although these figures portray the sheer size of the company, the EADS consortium is best known from its Airbus division, now delivering the largest passenger jet in the world, the Airbus A380. Other divisions are Airbus Military (building tankers, transporters, and air-to-air refueling systems), Defense and Security (building defense electronics, fighter aircraft and unmanned aerial vehicles), EADS Astrium (manufacturer of ballistic missiles, satellites and

navigation services), and Eurocopter, the helicopter division participating in the NH90 project.

Eurocopter is full partner in the NH90 program. As its subsidiary, Eurocopter Germany is a full partner as well, the companies will be addressed as Eurocopter France and Eurocopter Germany accordingly. Eurocopter France is located in Marignane in France, Eurocopter Germany in Donauwörth, Germany. In the General Memorandum of Understanding (MoU) and the Design and Development MoU, it was decided that 43.4 percent of the common work was allocated to France, 23.6 percent to Germany, 26.4 percent to Italy and 6.6 percent to the Netherlands. In the additional Production Investment/Production (PI/P) MoU, these numbers changed: both of the Eurocopter companies currently represent a 31.25 percent share within the NHI consortium, contributing to a large 62.5 percent share of the EADS holding in the program. 32 Percent of the shares are held by AgustaWestland and Stork Fokker's 5.5 percent completes the total. A thorough description of Stork Fokker and its involvement in the NH90 program will follow in the case description part of this chapter, as Stork Fokker is one of the four cases of this study.

The four companies that represent their respective nations are now known: AgustaWestland from Italy, Eurocopter France from France, Eurocopter Germany from Germany and Dutch Stork Fokker. These four companies signed an Inter Company Agreement in 1992. This was the official start of NH Industries (NHI). Based on the statement postulated in the General MoU, NHI was obliged to be located in France in close proximity to the public International Program Office (IPO) NAHEMA. Operating from Aix-en-Provence, as the actual neighbor of NAHEMA, NHI ensures the program management for the industrial partners and acts as the prime contractor for design and development, industrialization, production and logistic support of the NH90 helicopter in all variants. In addition, NHI is responsible for customization contracts as well as associated services. In conclusion, NHI bears the full system responsibility of the NH90.

NHI was originally structured in a three-tier management configuration. The top tier was the share holder assembly. This assembly is represented by a director of each company, meeting once every three months. Below this management committee acts the Board of Representatives. The last management layer is the program directors assembly. On October 23rd, 2008, the NHI partners signed a Joint Venture Agreement that replaced the Inter Company Agreement (ICA) of 1992. In this new setting, Stork became a partner with special arrangements and obtained a so-called limited partner position. Furthermore, from then on NHI was led by a 'directoire' composed of a bilateral Eurocopter and AgustaWestland management team. Within this new setting, the former agreement that was based on equally distributed, overall veto-rights, was abandoned. In the old setting,

these veto-rights concerned all program related decisions. In the adapted consortium, Stork obtained veto rights on decisions that are only directly related to design and delivery of Stork components. Again, the organizational structure, position, and production of Stork in particular will be portrayed in more detail in the case description.

Figure 2 in chapter one already showed the NH90 program setting with the initial partners, including the private partner consortium NHI and its public mirror organization NAHEMA. The following section will briefly describe NAHEMO and its founding nations. A more thorough description of NAHEMO's executing agency will be found in the case description of NAHEMA.

4.2.3 The Public Joint Venture: NAHEMO

Based on NIAG SG-14, the results of the feasibility/pre-definition phase that was presented in November 1986, and on the Project Definition Study that was signed by the participants on 22 September 1987, four nations signed the General Memorandum of Understanding. This MoU described the general principles that would apply to the Design and Development, Production, and In-Service Support phases and the nation's common understanding about the project phases, prices, workshare, and management organization of the program. With reference to the management organization, the participants decided to install a Steering Committee (SC), a Joint Executive Committee (JEC) and an International Program Office (IPO) to ensure a joint guidance, execution, control and supervision of the program. Together, these parts were called the 'NATO Helicopter of the 1990s Design and Development, Production and Logistics Organization', in short, the NATO Helicopter Management Organization, or to be even shorter: NAHEMO. The IPO became the NATO Helicopter Management Agency, or NAHEMA. NAHEMA is the contracting partner for NHI, representing the four client nations. NAHEMA will be thoroughly described in the case description part of this chapter, as it is one of the four cases. The JEC and SC are strictly speaking not part of NAHEMA, but as they guide this agency and are authorized to make decisions for this office, they will be described briefly.

The Steering Committee consists of representatives of each participating nation. Although multiple representatives are allowed to join the meetings, one member of each party acts as the head of their delegation. The location of meetings rotate between the participating nations and the meetings are chaired by the head of delegation of the nation where the meeting is held. The meetings take place at least twice a year and more frequently if necessary. During the meeting, each delegation has one vote and decisions can only be

taken unanimously. The responsibility of the Steering Committee includes the approval of industrial agreements and ensuring that the industrial organization is adequate to achieve the aims of the program. It also includes the authorization of work sharing and cost sharing and the approval of proposed budgets, approval of the prime contracts, and approval of personnel, structural, and size changes of the IPO.

The Joint Executive Committee (JEC) has a more supervisory orientation towards the day-by-day activities of NAHEMA. This committee exists of representatives of all the nations and they meet at times decided by the members of the JEC itself. The JEC is chaired by an elected member of the JEC and rotates, in principle, every year. Decisions are taken unanimously. It is the task of the JEC to 'ensure an adequate and timely execution of the program by the IPO (NAHEMA), technically and financially, to coordinate national requirements and prepare decisions for the Steering Committee in the period between the meetings of the Steering Committee' (General MoU, 1990).

4.2.4 Phases of the Project

The beginning of the project can be traced back to the early 1980's of the last century. It began when several European NATO members expressed their need for a new military helicopter that could encounter warfare scenario's of the next century. In addition, these countries foresaw the replacement need for their, then current, helicopter fleet. This mutual intent for a new helicopter led to a feasibility study that was conducted by NATO's NIAG institute. The NATO Industrial Advisory Group (NIAG) is a high-level consultative body of senior industrialists of NATO member nations, acting under the Conference of National Armaments Directors (CNAD). It plays an important role in advising the Committee of National Armaments Directors (CNAD) on key issues regarding armaments co-operation policy and the industrial and technological base of the Alliance. The feasibility study of NIAG, that was coined NIAG SG-14 and that also incorporated a pre-definition study, was presented in November 1986. The nations that participated in this specific study were Germany, Italy, France, the Netherlands and the United Kingdom.

The United Kingdom left the program after this feasibility and pre-definition phase. The other four nations, the so-called founding nations, signed the Project Definition Study on September 22nd 1987. This project definition study was mainly focused on the product requirements and was the basis of the Memorandum of Understanding (MoU) that was signed by the Ministers of Defense of the four nations in December 1990. This MoU's short title was 'NH90 General MoU' and contained a detailed description of the objective and structure of the program, work share and cost share agreements, intellectual property

rights, liability agreements and, among several other items, dispute settlement regulations. This MoU may be considered as the official start of the NH90 program, notwithstanding the fact that this start could not have been reached without the preceding years that laid the foundation for signing the actual document.

The general MoU cleared the way for more detailed descriptions of the project, resulting in the Design and Development (D&D) phase and its accompanying D&D MoU. This MoU was signed on June 25th 1991 and sets out the arrangements that governs the Design and Development (D&D MoU, 1991). The work in this phase is mostly focused on the design, development and demonstration of two weapon systems, the tactical transport version of the NH90 (TTH) and the Naval version, the Nato Frigate Helicopter (NFH). The weapon systems had to meet the requirements that were established in contractual agreements, such as the Weapon System Design and Performance Specifications (WSD&PS), the Interface Control Documents and the acceptance documents. The main activities during the D&D phase concentrated on the design and development of both weapon systems so they would meet the requirements as they were described in the WSD&PS. These requirements mainly focused on performance, mission effectiveness, reliability, maintainability and life cycle costs (D&D MoU, 1991). Furthermore, test articles, rigs, and mock-ups needed to be designed, developed and tested. And maybe even more important: the prototypes had to be manufactured, assembled, and flight tested during this specific phase of the project. The D&D MoU also established essential milestones. Important dates included the first flight of a prototype in 1994, the first delivery of the TTH in 1997 and the first delivery of the NFH in 1998 (General MoU, 1990).

The general MoU and the D&D MoU can be considered as the fundamentals and the starting points of the NH90 project, but they were still just paper documents. The physical birth of the project took place one year later, in 1992. In February that year, the creation of the International Program Office was a fact. This IPO was from then on known as NAHEMA. The Inter Company Agreement that was signed in March by Eurocopter Germany, Agusta, Eurocopter France and Stork Fokker created NATO Helicopter Industries, or NHI. NHI was located in an adjacent building of the NAHEMA building, as was demanded in the general MoU. With NAHEMA and NHI as the contracting agency for both the public and private partners, the road was paved to sign the first contract in that same year. The design work and actual development of the helicopter started in 1993, but the requirement to have a flying prototype in 1994 was not met. The first prototype, the PT1, made its maiden flight in December 1995. This was followed by the PT2 on March

19th, 1997 and the PT3 on November 27th, 1997.¹² Nevertheless, the Production Investment and Production MoU (PI&P MoU, 2000), in which intended and committed off-take numbers were documented, was signed in 2000. These numbers are presented in tables 3 and 4.

| | TTH | NFH | TOTAL |
|-----------------|-----|-----|-------|
| France | 133 | 27 | 160 |
| Germany | 181 | 38 | 219 |
| Italy | 150 | 46 | 196 |
| The Netherlands | - | 20 | 20 |
| TOTAL | 464 | 131 | 595 |

Table 3: Intended off-take Numbers

(Source: PI&P, 2000)

| | TTH | NFH | TOTAL |
|-----------------|-----|-----|-------|
| France | 68 | 27 | 95 |
| Germany | 134 | - | 134 |
| Italy | 71 | 46 | 117 |
| The Netherlands | - | 20 | 20 |
| TOTAL | 273 | 93 | 366 |

Table 4: Committed off-take numbers

(Source: PI&P, 2000)

The objective of the production phase was to establish and maintain the capability required to produce and deliver the NH90 and to establish an efficient support system for the first years of its operation. The actual work that had to be undertaken during this phase was concentrated towards qualification activities, the production of the NH90, national customizations, and production investment. The PI&P MoU also recorded the production workshare. This workshare was based upon the intended off-take numbers (intended number of helicopters to be bought) and was established as presented in table 5:

¹² These three prototypes are the basic versions of the NH90. After PT3, PT4 and PT5 followed. These were respectively the transport version, assembled and tested in Germany, and the maritime version, built and tested in Italy.

| | |
|-----------------|--------|
| France | 31.25% |
| Germany | 31.25% |
| Italy | 32% |
| The Netherlands | 5.5% |

Table 5: Initial Production Workshare

(Source: PI&P, 2000)

However, one year later these numbers were slightly altered. In June 2001, Portugal joined the NH90 program. ‘Amendment no. 1’, the so-called ‘Portugal Admission’ was added to the PI/P MoU. In this amendment it was stated that “the Portuguese Participant’s industry will not have the status of a Partner Company. However, the Steering Committee will endeavor through arrangements between NAHEMA and NHI that the Portuguese Participant’s industry will be incorporated in the Program as a second level sub-contractor” (PI&P MoU, Amendment no.1, 2001). Although the industry of Portugal did not receive a direct workshare due to this admission, being a second-level subcontractor still meant a fixed share of industrial activity of 1.2% of the overall production. With the Portuguese admission included, the production workshare was restructured as presented in table 6:

| | |
|-----------------|--------|
| France | 30.85% |
| Germany | 30.85% |
| Italy | 31.6% |
| The Netherlands | 5.5% |
| Portugal | 1.2% |

Table 6: Production Workshare After Portuguese Admission

(Source: PI&P, 2000)

These alterations were based upon an intended and committed off-take number of ten TTH helicopters.

Portugal was not the only nation that joined NAHEMA in a later phase of the program. In 2007, Belgium approved the acquisition of, and signed a contract for, four TTH, four NFH and two optional NH90’s. Belgium’s participation in NAHEMA is restricted to the ‘In Service Support’ (ISS) phase. In this phase, with its accompanying MoU that was signed at the end of 2004, the scope of work to be executed covers activities and areas as materiel support, maintenance, repair and overhaul, configuration management, management of

supportability data and airworthiness, training media support and training media operations, technical publications, and technical support services.

4.2.5 *NH90: The Product*

The actual output of organizational processes, e.g. a product or service, is more often than not irrelevant in organization oriented studies. If for instance one is interested in hierarchical relations or intra-organizational cooperation, it does not matter whether that organization produces airplanes, cars or financial services. Due to influencing as main topic and the importance of complexity and context in relation to this topic, this is not the case in this study. Chapter two already revealed the correlation between complexity and influencing processes. It is therefore necessary to describe the product in terms of its complexity to indicate the extent in which this is influencing the influencing process.

Technical Complexity

Chapter two explained that technical complexity is comprised of two elements: the integration of components and the technical newness of one or more components or of the overall product. With reference to the integration of components, it is a slight understatement to conclude that the NH90 is a complex product. In the first place because the helicopter exists of several parts that in itself are complex combinations of subparts, like cockpits, landing gear, and engines. For that matter, the NH90 can be delivered with two different engines: the General Electric T700/T6E and the Rolls-Royce Turboméca RTM322-01/9. In addition, the fuselage provides another example of integrating different components. In this case the fuel tanks are incorporated in the floor of the fuselage, that in its turn is crash resistant. Crash resistance is provided by a crushable zone and a non-deformable zone between the tank and the outside skin. The avionic system completes this list of examples. The NH90 core avionic system is considered 'one of the most integrated avionics systems ever seen in a transport helicopter' (Moxon, 1998). Figure 11 shows a model of the several subsystems that are integrated in the NH90 core avionic systems.

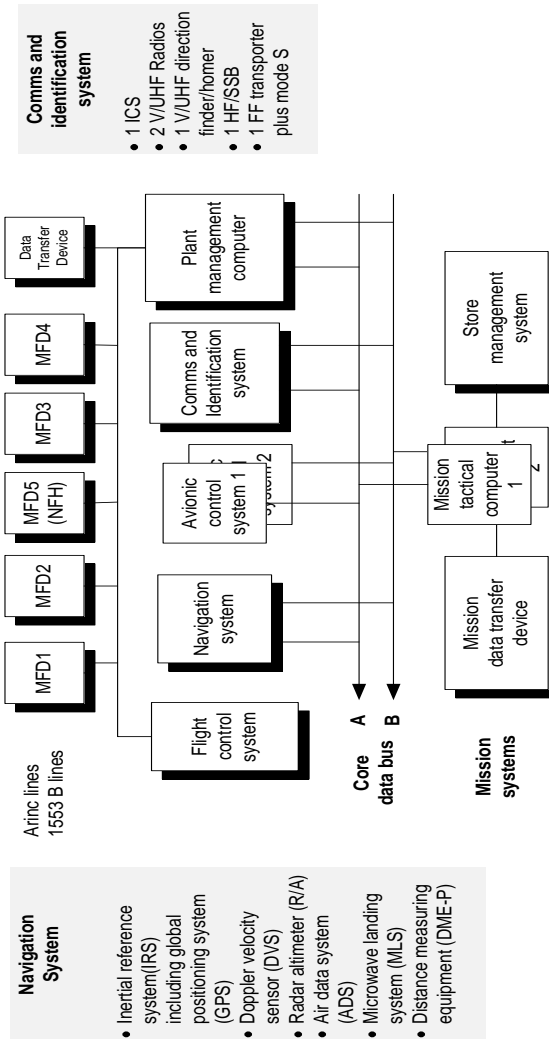


Figure 11: NH90 Core Avionic Systems
(Source: Moxon, 1998)

Although a detailed explanation of this model is outside the scope of this research, it clearly shows the complexity of one of the several subsystems of the NH90. These subsystems then need to be integrated to manufacture a complete helicopter. This process in itself is rather complex, but the NH90 program set-up contributes to an even more difficult integration process. Due to workshare agreements, the development and production of the numerous subparts are divided among the private companies that participate in the project. Table 7 shows the company responsibilities in text, while figure

12 shows an illustrated overview of the subparts developed by the four partner companies.

| Company | Responsibility |
|--------------------|--|
| Eurocopter France | Cockpit development, rotors and blades, core avionics and control systems, power plants and flight testing of basic prototypes |
| Eurocopter Germany | Centre section, fuel systems, avionics, tactical transport mission equipment package and flight tests of army prototype |
| Agusta | Main gearbox , iron bird test rig, hydraulic system, naval mission equipment package and flight tests of naval prototype |
| Fokker Services | Tail section, landing gear design, sliding doors, intermediate gearbox, and windtunnel testing |

Table 7: Division of Work
(Source: Moxon, 1998)



Figure 12: Component Integration
(Graphic displayed with courtesy of NHI)

In addition to component integration, *technical newness* adds to technical complexity. In case of the NH90 helicopter, several cutting-edge technologies were introduced. First, the NH90 is the first transport helicopter in the world that is fitted by a full fly-by-wire (FBW) flight control system. This means that no mechanical backup system to the electronic system exists in the production NH90's. According to a NHI engineer, this specific flight control system is "lighter, less mechanically complex, saves space and is no more expensive to maintain than a mechanical system". In addition, this system "...improves pilotability, because the natural response of the aircraft is improved, diminishing pilot workload, so that the crew is better able to carry out its mission, which is important in a two-pilot helicopter of this complexity" (Moxon, 1998: 98).

What is also new, is the ability to fold the NH90 naval version (NFH). To enable ship deck storage, automatic blade and tail folding is provided. Where previous helicopters used hydraulic folding, the uniqueness of this specific option is that the folding of the blades and the 180 degrees forward rotation of the rear of the helicopter happens totally electrically. This is made possible by using smaller and more powerful electric motors, which also make the process "simpler, more reliable and cleaner" (Moxon, 1998: 95). Another 'world's first' is the use of certain composite materials in the fuselage. Although this in itself is nothing new, the advancement lies in the fact that it is done in such a way that it protects occupants from the rotor system entering the cockpit at a 22g impact level. Although one should be aware of the 'sales talk' that accompanies these new-used technologies and the advantages may or may not be disputable, these technologies are undeniably part of the NH90 and therefore contribute to the overall complexity of the product.

Development complexity

With the ultimate goal of building a state-of-the-art military helicopter, the NH90 project members knew in advance they would encounter difficulties during the development process. The necessity of problem solving or decision making entities¹³ within the organizational set-up expresses the insight of the project members that problems could arise during the process. That these things happen is very common, because the inability to foresee how much time, money and effort it will cost to build a product that has never been built before, is the classical problem of New Product Development projects. These problems manifest themselves in many different ways. Technical issues, integration problems, testing difficulties and different interests, to name a few, all contribute to

¹³ I.e. the Joint Executive Committee and the Steering Committee of NAHEMO and the Shareholders Assembly and Supervisory Board of NHI.

development complexity. In this perspective, the NH90 program was a NPD project like any other. For instance, when the contracts were signed in 1992, the fixed price contracts were based upon helicopters equipped with computer systems that were the standard at that time. But as the project proceeded and time elapsed, computer systems evolved and became much more advanced and much cheaper. This meant that contracts needed to be renegotiated if the clients wanted helicopters that were still state-of-the-art at the time they were delivered. Another problem arose concerning the so-called Government Furnished Facilities, or GFF. The nations have test facilities and equipment that they use for purposes other than the NH90 project, but to cut down the costs for this specific project they were willing to provide them for free. This was also put down in the contracts. However, what was not written down was how many time industry was allowed to use these facilities. Furthermore, if industry lacked a decent preparation and the tests failed, the nations would have to make these facilities available for extra tests, resulting in extra costs for the nations. These flaws in the contract resulted in many discussions between the nations and industry, costing a lot of extra time and money.

In short, these examples show the difficulty to foresee future developments and as such they are very hard to anticipate to. It is a characteristic of NPD projects and actors that are involved in such projects just have to deal with it. Dealing with these issues the right way makes a difference of being more or less successful compared to partners in the same project.

Environmental complexity

Environmental complexity, or market complexity, refers to the unpredictability of market related factors. This includes the reaction of competitors but also the change of customer needs. One could imagine that the unpredictability rises as a project absorbs more time. Customer needs probably will not change as much over a week as they will over several years. With reference to the NH90 project however, these changes were only partial. The reason for this also relates to why the reaction of competitors had only a limited impact. Both reasons are related to the fact that industry signed a contract for development and production directly with its clients. It therefore already had a guaranteed off take and they would build a product directly based upon the requirements of their clients. Furthermore, changes in the product were penalized. It also meant that these clients, interested in helicopters nonetheless, were less influenced by other competitors as they were contractually bounded to this project.

Marketing complexity

Marketing complexity refers to unfamiliarity with a new market when a new product is developed or to unfamiliarity with the response of an existing market to the new product. First, this study concentrates on nations and companies that together build a helicopter instead of a privately developed helicopter that then needed to be sold to external customers. Furthermore, this study is focused on influencing during the project and focuses on the founding nations and its related industries. From these perspectives, marketing issues did not really affect the project, as make-or-buy decisions were taken before participating in the production phase of the project. Pure marketing issues are therefore beyond the scope of this study.

Organizational complexity

This specific form of complexity stems from the integration of specialized departments within organizations. In fast-developing and knowledge intensive environments, organizations are more and more dependent on experts, each within their own field of expertise, cooperating to develop and produce new products. Although organizational complexity initially focused on cross-functional integration and horizontal differences of interest between several functional departments, this study concentrates on organizational complexity that is 'vertically induced'. Due to the financial and political impact of the project, several organizational layers are involved at both the public and private organizations that participate in the project. With reference to hierarchical layers, this means that not only conflicts are considered between marketing, R&D, or other functional departments, as they are often depicted in literature on conflicts (e.g.: Atuahene-Gima et al., 2000; Dougherty, 1992; Kim et al., 2003), but also, and even more so, on conflicts caused by differences in perceptions, self-interests, and scope between vertical layers. This study concentrates on the vertical layers ranging from project management level up to ministry level. Differences between these levels are often centered around time, goals, and budget issues (Bacharach et al., 1996; Mintzberg, 1980). Multi-million euro projects are accompanied with political and economical interests, thereby introducing political involvement within the public organization of the project. This involvement is another addition to the organizational complexity of the NH90 project.

Inter-organizational complexity

Interdependency problems, conflicts, communication problems, and the degree of formality and informality were depicted as the outcome of inter-organizational complexity. The NH90 program could be a textbook example on this topic. The

interdependency on the nations' side is mainly centered around budgetary dependency. During the interviews it was often stated that none of the countries could have developed this helicopter, simply because it would have been too expensive to develop it on their own. The interdependency on the private side is somewhat artificial. Agusta and Eurocopter are both helicopter manufacturers and as such they probably could have developed the NH90 without the help of the other. It was the workshare agreement between the countries that forced them to work together. Although both companies are involved in projects in which they do work together, they are considered each others' biggest competitor. Especially in Europe. This rivalry between the two most important companies of the project negatively influences for instance knowledge sharing between the partners for commercial secrecy reasons.

Conflicts did not only occur between the private firms in the project. Also the classic contradiction between public and private actors played an obvious role. The public actors in this network acknowledge the manufacturers desire to make profit, but only to a certain extent. They tried to control the profitability by negotiating a maximum profit percentage with industry which, on its turn, should then be assessed by each respective nation's auditors. The problem with this was that links between a nation and its industry is slightly different from one nation to another. Where the Netherlands and Germany have a rather distant relation with their industry and have no problem with harsh measures, relations between industry and government in France and Italy are much closer and more delicate. This meant that financial audits were to be accepted based on trust, where the basis of this trust was rather thin. This problem could be solved by cross-nation auditing, but legislation prohibited this solution.

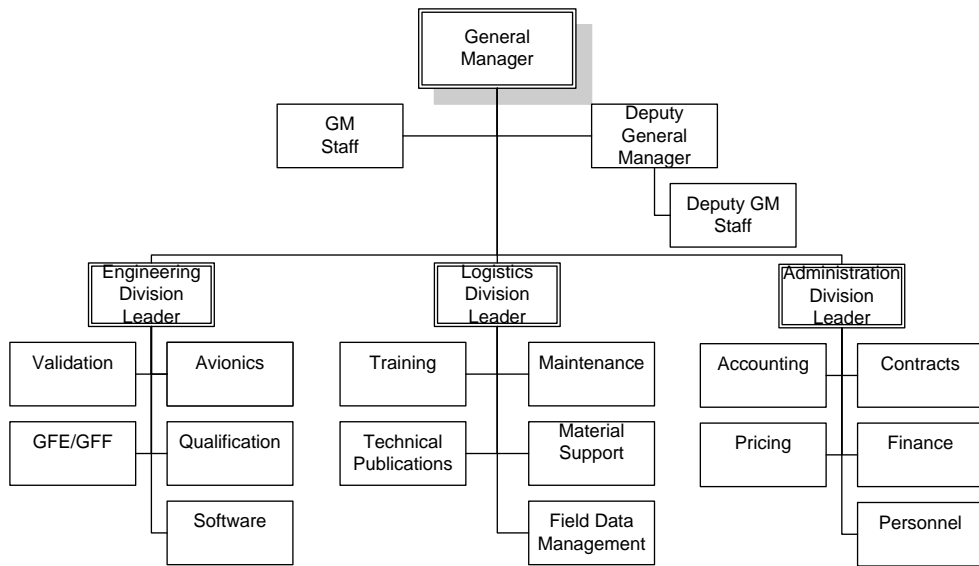
The formal relationships between the nations and industry are described in the General MoU. This document stated that all official contacts between the nations and the partner companies ought to be directed via NAHEMA and NHI. In practice, these directions are strictly followed by both sides. Informally, however, ties between the companies and their governments and military agencies are strong and short and they do not follow the NAHEMA-NHI-path as formulated in the General MoU. Information, therefore, flows more rapidly between the firms and the public participants. This enhances the formal decision making processes between NAHEMA and NHI and is thereby positively influencing cooperation between the NH90 participants.

4.2.6 Concluding Remarks

Chapter two indicated complexity, albeit product or organizational complexity, as futile soil for influencing activities. Technical and developmental complexities induce tensions between the manufacturers and between the manufacturers and the clients. These tensions are not simplified by the organizational set-up of the NH90 program. Although most agreements between the partners are written down in Memoranda of Understandings and in contracts between the different actors, they do not entirely solve the problem of conflicting interests. The findings chapter of this study will elaborate on this subject. The abovementioned description of the product, the organization of the program, the specific circumstances and the politico-economic spheres that surrounds the program depicts the context of influencing activities within the NH90 project and contributes to the substantial investigation of influencing as the main topic of this study. The following sections will contribute to a better understanding of influencing and its intra-organizational context by portraying the four cases.

4.3 NAHEMA

The former section on project description briefly mentioned the executive part of the public cooperation, the agency called NAHEMA. NAHEMA was founded in February 1992 and in those days representatives from the four founding nations constituted the organization. Figure 13 depicts the organizational set up of NAHEMA. Within NAHEMA, four distinctive subgroups are recognizable: a management, an engineering, a logistic, and an administration group.



**Figure 13: NAHEMA Organizational Chart
(situation in 2008)**

The allocation of support staff posts (so called B-level posts) and professional and section, division and department heads (A-level posts) throughout the organization, are made in accordance with the participants' shares in the program. The level of the post, or the importance of the post for that matter, is also of influence to what nation the post is dedicated. The General Manager, for instance, changes between Italy and Germany, whereas his deputy will always be of French origin. In addition, two of the three Division Leaders are German or Italian and the task of Administration Division Leader is performed by a Dutchman only. The nationality of the respective posts are fixed, but the selection procedure of the applicants for these posts is outside the scope of NAHEMA. It is the responsibility of the nations to find a replacement for the posts that are dedicated to that nation. For political reasons, the maximum number of NAHEMA employees was determined at 50. In conclusion, the posts ranging from General Manager to secretary are divided based on the nation's share in the project.

4.3.1 The NAHEMA Organization

Management

NAHEMA is led by a General Manager (GM). The position of GM rotates between Italy and Germany. His deputy is always a Frenchman. Members in his staff include a security and staff officer, three configuration management and quality assurance specialists, and three communication and information officers.

The General Manager is responsible for the overall day-to-day management of the program. Furthermore, the negotiation, placing, and administration of the prime contracts with NHI are directed to him. The MoU explicitly states that the General Manager acts under delegated authority of the Steering Committee (SC). Although this enables the GM to execute his job, he still needs approval from the SC. For instance, the specifications of the NH90 and the annual budgets are drawn up by the GM and his team, but both need to be approved by the Steering Committee. The execution of planning and work share is checked by the GM, but changes need to be approved by the SC as well. So in terms of budget, product, and planning, decisions are taken at a level above the General Manager of NAHEMA (Gen MOU, p9-10).

Engineering Division

The engineering division is mainly focused on the development process of the program. Within the program, this division is responsible for the execution of the development contract. Even more specific, it is responsible for the content of the contract, not the legal aspects as these are a responsibility of the Administration Division. For the engineering division, the process starts with the set up of the product specifications, in close cooperation with industry. Furthermore, it coordinates the use of government furnished facilities. These are needed as test centers for the industry. An example of such a government furnished facility is a navy vessel to test the landing gear of the NH90 on a moving ship. The process ends with the qualification of the helicopters, which essentially comes down to checking its compliance with the contracts.

Logistics Division

Within the program timeframe, from 2004 onwards the engineering activities diminished and the focus slowly shifted from engineering to logistics. The logistic division is split in two distinctive parts. One part, consisting of six people, is occupied with material support and maintenance. The way the maintenance organization is set up may differ between the

partners. They can choose for in-house maintenance, which will allow the nation to maintain their helicopters within the regiments or squadrons. The 'technical term' for this is field maintenance. The other option is to involve industry in their maintenance organization, which allows for more in-depth maintenance, or so-called depot industry maintenance. The nations are free to choose either one of the options or to use a mixture of both. It is then up to the material support and maintenance section to prepare and guide this cooperative process between nation and industry.

The other section's efforts are directed towards training and technical publications. Documentation these days are no longer only presented in paper formats but in a so-called Interactive Electronic Technical Publication, or IETP. The main problem with IETP is that the set up costs a lot of time because of the confounded data modules. Several companies are involved in the development of numerous components of this helicopter and with it, its respective data modules. If one module is changed, this would change the whole publication. The documentation section then, takes care of the certification and qualification process of this IETP and makes sure it is delivered to the nations on time. The other part of this section is concerned with training. Training does not only involve flight training in simulators for the pilots, but also computer aided instruction for technicians. The whole range between (paper) documentation, computer aided instruction, and full flight mission simulators with cockpits and vision systems are the responsibility of this subsection and is done by five people.

Administrative Division

The last section is called the administrative division. This division is responsible for finances, contracting, and personnel, with contracting consuming about eighty percent of the total workload. The contracts are representing a value of over 7 billion Euros. Besides the framework contracts that apply for all the NAHEMA members, this section also processes the additional contracts based on configuration changes, separate purchase orders, and penalty clauses. Due to the mismatch between payments and work performance¹⁴, the nations are allowed to file 'consequential damage' claims. In addition, the earlier mentioned in-service contracts are negotiated by the NAHEMA contracting branch. The financing activities are related to budgeting and payment of bills when milestones are established, whereas 'personnel' is related to human resource management.

¹⁴ These issues were especially a problem in 2008, the period in which the interviews were conducted.

4.3.2 *Organizational Flexibility*

Political agreements determined a 50 employee limit for financial reasons. These financial restraints prohibits NAHEMA's possibility to grow when circumstances ask for more human resources. When NAHEMA was founded, it was thought that flexibility was built in by so-called working groups. The nations agreed to support NAHEMA by providing working groups that encompassed experts of the four member states. These working group members are not on the NAHEMA pay roll, but they do facilitate NAHEMA on important matters that require specific expertise that could not be provided by NAHEMA itself. These working groups could expand and decrease whenever necessary and could be dismantled when proven redundant. This set up worked very well, but unfortunately not in all cases. The gradual shift from the Development and Design phase to the In-Service support phase had a severe impact on the contracting branch. The number of employees for this subsection was based on a workload that was considered sufficient during the D&D phase. However, the amount of (contracting) work rapidly grew when the logistic activities became more important, resulting in a work overload during the ISS phase. The negotiation of the prime contracts with NHI is the responsibility of NAHEMA and although the participants have the right to attend such negotiations as observers, the actual work is done by the contractors of NAHEMA without the help of a contracting working group. The gradual shift from engineering to logistics and its accompanying increase in contracting work, therefore, placed a heavy burden on the administrative division in general and the contracting branch in particular. The organizational set up, based upon a strict MoU, appeared unable to solve this problem.

The assistance by experts on the various working groups are not the only contribution offered by the member states. The General MoU clearly states that the participants should also conduct technical and financial monitoring of the work carried out by industry within their own territory, including price investigations and auditing services (General MoU, 1990: 10). In addition, they are required to provide technical services, especially related to quality assurance, to confirm the achievement of technical milestones.

4.3.3 *Status Quo*

In 2001, Portugal joined NAHEMA. Portugal is fully integrated in the Production MoU and its associated decision processes. Because the D&D phase was already finished by then, they obviously did not participate in that phase. After Portugal, Belgium joined NAHEMA

in 2007. Due to their late involvement in the project they do not participate in the D&D and P&PI phase. They have separate production contracts with industry, albeit under the same conditions as the other NAHEMA members. Belgium is fully integrated in the In-Service Support phase, including a seat in the Steering Committee. They are not allowed to veto on subjects that refer to the production phase, but besides this restriction, they are considered a full member within NAHEMA.

In addition to the six member states, there are several countries that benefit from services delivered by NAHEMA. This specific group includes Sweden, Norway, Finland and Australia and for them a 'community-MoU' was established. Because these services are accompanied with extra workload, this community agreed to pay for extra employees. This enabled NAHEMA to enlist three extra workers, including an extra contractor. It also explains the fact that (a little) more than 50 people are currently working at NAHEMA.

Recent concerns within NAHEMA are primarily focused on how to deal with their future activities. They have acknowledged that these activities, centered around in-service support processes, require a change in mindset. The current organization has a project oriented set up, while the in-service support phase, that may last for decades, may call for a process oriented organization. Transition from one phase to the other is therefore one of the priorities within NAHEMA and its orientation towards a future role within the NH90 program.

4.4 Defense Materiel Organization

The Dutch Defense Materiel Organization (DMO) is the second case of this study. It is a part of the Dutch defense organization that is responsible for the availability of products and services for the Dutch armed forces. One of its tasks is the procurement and maintenance of materiel and in that perspective it participates in the NH90 Program. This paragraph describes the structure and responsibilities of DMO and zooms in on the NH90 project office that is part of this organization. Furthermore, it depicts the relation between DMO and both internal and external actors and its relation with the political level of the defense organization.

4.4.1 *Dutch Defense Organization and Dutch Industry*

The procurement of defense materiel is a process that often involves millions of Euros, years of research and the participation of a wide variety of actors, ranging from research institutes to politicians and from defense industry to military professionals. Since 1984, the Netherlands procure their equipment based on a decision making process called DMP, Defense Materiel Process, to regulate the complexity that accompanies this amount of actors, regulations, financial constraints and political interests.

In the early stages of this process, decision makers consider the input of Dutch companies and how they can get involved. This input may vary from being a research partner in the design phase of a project to full product development. The input of Dutch industry in design and develop processes is considered important in the light of the overall goals of government policy, such as improving employability and creating and maintaining a healthy balance of payments. Within this policy, choices are primarily based on military-operational and military-technical considerations. In addition, financial, economical, social and international political arguments are taken into account. Furthermore, based on DMP policy, defense related procurements need to contribute to the Dutch economy in the best possible way and, last but not least, European cooperation deserves highest priority (Tweede Kamer, 1984-1985b, 1985-1986).

European cooperation took its tangible form in the earlier mentioned Independent European Program Group, the IEPG. The IEPG was mainly constituted to establish a more balanced trade in defense related products between the United States and Western Europe, what was to become the so-called 'two-way-street' (Tweede Kamer, 1984-1985b).

Furthermore, a group of ten independent experts from as many countries was formed a year earlier to propose several ways to improve the competitive strength of European defense industry. The results of this study was published in a manuscript called 'Towards a Stronger Europe' (IEPG, 1986). Based on this document, the IEPG member states formulated several projects that reflected the harmonization of the military-operational needs of the member states. It was then up to these states to involve their respective industries in these 'Cooperative Technology Projects'.

Several consultative committees were already established in the Netherlands, but the Dutch government, as an IEPG participant, now intensified its cooperation with, for instance, the Advisory Board for Military Production (de Adviesraad voor Militaire Productie, AMP) and the NIID, (later renamed to NIDV, the Netherlands Defense Manufacturers Association). It should be mentioned that the NH90 project was not one of the 'Cooperative Technology Projects', but the IEPG initiative illustrates the European willingness to cooperate in the realm of Defense Production, as was already described in the first paragraph of this chapter. Furthermore, the intensified cooperation with the AMP and the NIID, that was a spin-off of the IEPG initiative, eventually resulted in the participation of Dutch industry in the NH90 project.

It was Dutch policy that for every procurement above 5 million Euros, placed outside the Netherlands, compensation was required, in one way or another. Besides military counter orders, there are several forms in which Dutch investment abroad could be compensated. A foreign company replacing its production facilities to the Netherlands, independently or in cooperation with a Dutch partner; obtaining the right to produce under license; obtaining co-production; and in the form of indirect compensation or by participating in development and production processes of other sorts of materiel. Dutch compensation in the NH90 project was established in several phases, but all involved compensation by co-production (Tweede Kamer, 1984-1985a).

The Netherlands committed themselves for the pre-definition phase of the NH90 project. The participating nations agreed to involve their own industries by ratio. As a result, Dutch industry took part in this study with a share of approximately 15 percent. After thorough investigation of the feasibility study results, the four nations, including the Netherlands, continued the project. Like the founding nations, the participating companies also established a joint venture. For the Netherlands, Fokker took part in this alliance. Together with Dutch companies DAF and HSA (Hollandse Signaal Apparaten), Fokker tried to acquire a 'fair and technological high-quality' share in both the development and production phases (Tweede Kamer, 1986-1987).

This section illustrates the intertwined processes that accompany defense procurement. It is not just the Navy or Army or Air Force that is looking for new equipment and then buys it. The whole Defense Department is involved as is the Ministry of Economic Affairs, Ministry of Social Affairs and Employment, and the Ministry of Finance. It is stressed that military-operational considerations have the highest priority, albeit not the only concern. For this study, Dutch participation in the NH90 project is taken into account. As the Minister of Defense and Secretary of State play an influential role and as such are part of the defense organization, they are incorporated in the DMO case. The sentence 'the whole Defense Department is involved,' stated in this section, is a bit exaggerated. In the next section, the unit of the defense organization that is involved will be described, including the role of the Minister and its Secretary of State.

4.4.2 Political Involvement

Mentioned earlier, the DMP provides in rather strict procedures for defense materiel procurement. It guides political decision making and provides for adequate information provision to ministers and, when concerning large-scale projects, the house of representatives. This enables them to redirect a program whenever necessary. Not all projects are brought to the attention of the house of representatives. This is only the case with projects that exceed a budget of 25 million Euros.

Projects with a budget between 25 and 100 million Euros are usually mandated by the state secretary for defense to the civil-service level. Projects with a financial scope of more than 100 million Euros are not mandated. This is also the case if a project's financial scope is less than 100 million Euros, but due to political sensitivity, complexity, or international, interdepartmental, and inter-service aspects it may require an intensive guidance by the state secretary and the house of representatives. Although the minister of defense will remain responsible, the state secretary handles the defense materiel portfolio.

The Members of Parliament informed about the program per project phase which is done by reports, and in case strategic materiel projects by letters, from the state secretary to the house of representatives. These letters and reports do also pay attention to the relation with governmental policy concerning compensation orders and industrial involvement and relations with similar or related projects. Referring to this study, the NH90 project, with an initial project volume of 788 million Euros (Ministerie van Defensie, 2009), its complex organizational configuration and the European intent to intensify cooperation in the realm of defense procurement, is not mandated to the civil service and

as a consequence regularly monitored by the state secretary and the house of representatives. Projects that fit these characteristics are called category 1 materiel projects.

4.4.3 The DMO Organization

The following section focuses on the DMO, the civil service part of the ministry that is responsible for materiel that is used by the Dutch defense forces. This responsibility covers the entire life cycle of a product, ranging from procurement to maintenance to disposal. With 20 percent of the annual defense budget of 8 billion Euros to invest and 6000 employees, the DMO is a major actor within the defense organization. The DMO works for all operational users from all services. Its organizational parts are grouped around a single type of materiel and it clusters fields of expertise from the Services and project management around these groups. The organizational chart in figure 14 illustrates the division of work within the DMO. It should be mentioned that the DMO is organized like this since 2006. Before that, the three armed services (army, navy and air force), each procured their own materiel. Although internal processes were undoubtedly different from what they are now, the impact of this change for this study is minimal. Before 2006, the NH90 project was led by the navy's materiel organization, while now the project team, albeit within an integrated organization, exists of navy officers only. Furthermore, the role of the NAD and the state secretary are unchanged. For the sake of clarity and because future projects of the DMO will be carried out in the existing organization, this study focuses on the current status quo.

For this study, attention is focused on the Director of the DMO and the Directorate of Projects and Procurement. Figure 14 presents the organizational structure of the DMO. The divisions that are of particular interest for this study and that have participated in the data collection process are indicated in contrasting colors.

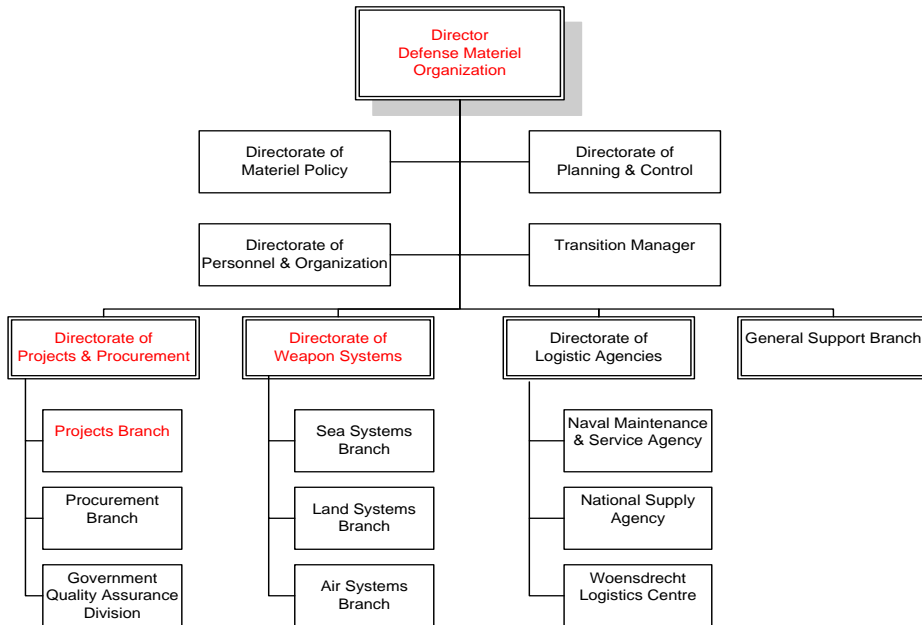


Figure 14: Organizational Chart Dutch DMO

The Director of the DMO also acts the National Armaments Director (NAD). In this role, he is the highest non-political Dutch representative during international meetings in the field of defense related materiel issues. As such, he plays an active role in the NH90 project.

The Directorate of Projects and Procurement (DP&P), portrayed in figure 15, manages all procurement activities at a functional level. These activities are split in project-based procurement of category one projects and a branch for smaller and non-project procurement. Furthermore, this directorate manages the divestment of redundant military equipment

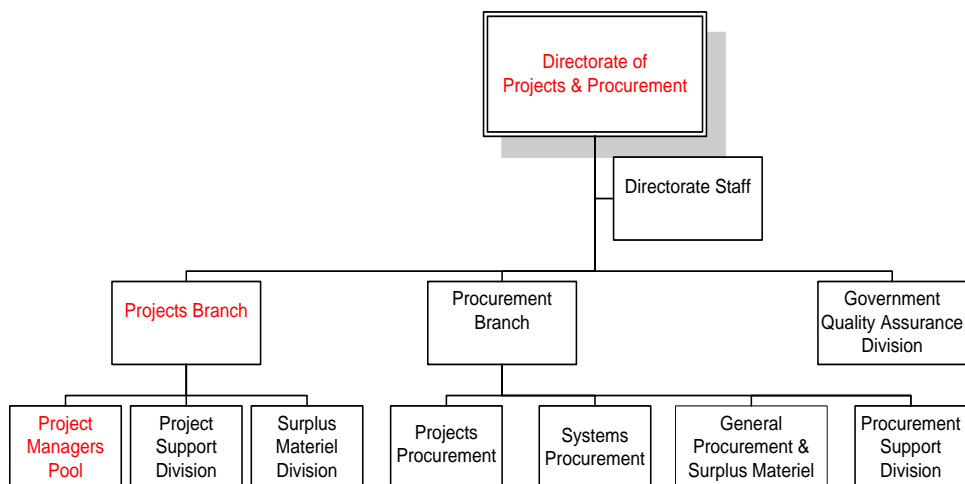


Figure 15: Organizational Chart Directorate of Projects and Procurement

The Projects Branch is responsible for the management of category one materiel projects. Because of their large financial scope and political sensitivities, special project teams are set up to provide, maintain or dispose these products or services. The ‘projects’ part of the DP&P consist of a project leaders pool, a project support division and a disposal division. The contribution of the projects branch lies primarily in the area of project management expertise and experience. When project teams are created, they always exist of project leaders, controllers, and contract managers. Depending on size and nature of the product, these teams can expand to a size suitable for that specific project and may then include for instance logistics managers and engineers. Project teams are collectively responsible for the entirety of the product. They can make use of the expertise of the sea, air, and land systems components from the Directorate of Weapon Systems. In addition, the specialist of the project team gain expertise in the new product during the acquisition process. This translates into benefits for the operational users in terms of service they receive from the DMO after the product is procured.

The NH90 project team consisted of a project manager from the project managers pool, and a project controller, contract manager and integration manager who were drawn from the project support division. All of them were navy officers, except for the contract manager who was civilian. The general in charge of the project and procurement department is a member of the Steering Committee. In the beginning of the project, he was mandated by the state secretary to sign the Memorandum of Understanding.

4.4.4 *Status Quo*

The initial reason for the Netherlands to step into a naval helicopter project was to replace the Lynx helicopter, that served the Navy for several decades. According to the PI/P MoU , the first helicopter would be delivered to the Dutch Navy in 2007 (PI-P MoU, 2000. Annex A and B). If the first German NFH's were to be delivered in 1998, according to the General MoU, and the Dutch would receive their helicopter 3 years later, according to the PI&P MOU, delivery in 2007 would still mean a six year delay. At the outset they opted for 24 helicopters (Tweede Kamer, 1986-1987), although this number rapidly changed to 20 within a few years. Due to budgetary reasons, 20 full mission helicopters were replaced with 14 full mission helicopters and 6 helicopters outfitted with minimum equipment. In 2005, the Netherlands again altered their order by replacing 8 of the NFH helicopters with 8 tactical transport helicopters, including an option for an extra two (Tweede Kamer, 1985-1986, 1986-1987, 2010). The initial project was estimated to cost 788 million Euros. This figure rose gradually to 883.2 million in 2003 and even to an estimated total project budget of 1.117,2 million Euros in 2009 (Tweede Kamer, 2010).

The first NH90 was delivered to the Dutch Defense Forces, again two years later than planned in the PI&P MoU, in May 2010. Adding up to a total of eight years delay. The first batch of helicopters, arriving in MOC configurations, will primarily serve as training helicopters and for operational testing and evaluations. From 2012, the NH90 will also take over the patient transportation service from the Dutch Wadden Islands from the Lynx and AB-412 rescue helicopters (Vos, 2010). The remaining nineteen helicopters will enter service, according to the NHI production planning, one by one every three months (Vos, 2010). The NFH helicopters will be stationed at the Navy Airbase de Kooy while the eight TTH versions will have their home base at the Airforce base in Gilze Rijen.

4.5 Bundesamt für Wehrtechnik und Beschaffung

Within the NH90 program, Germany is an important actor. This importance is mainly caused by the number of helicopters Germany is procuring and by the accompanying involvement of German industry in the project. The following section zooms in on the structure of the German procurement office and its relation with political and industrial actors. The official name of the procurement office is 'Bundesamt für Wehrtechnik und Beschaffung' or BWB in short, or 'Federal Office of Defense Technology and Procurement' in English. This organization will be addressed as BWB from here on.

4.5.1 *Political Involvement*

The rather complex processes of Defense materiel procurement is, like in the Netherlands, described in procedures and regulations. Germany developed the Customer Product Management (CPM) document. This document indicates several phases of a project and describes the organization, objectives and working steps that have to be taken into account during every single project. It also determines the level for political involvement. In the CPM it is stated that 'the MOD Executive Group shall be consulted in matters which are of political importance, or involve a project volume of more than 25 million Euros, or are of major defense economic significance...' (CPM, 2006). Major decisions need to be submitted to the MOD Executive Group in case of non-compliance with functional requirements, a foreseeable delay of more than six months or in case of a foreseeable increase against the cost ceilings as specified in the latest known documents. As Germany committed themselves to the NH90 program with an initial sum of 682.49 million Deutsch Marks¹⁵, political involvement became evident.

With an initial cost share of almost 700 million DM, Germany consequently insisted on their national industry's involvement in the project as well. German industry's involvement became absolute with Eurocopter Germany's participation in the program, manufacturing the fuselage fuel systems, the communication systems, the avionics control systems and providing the assembly line for the German and Belgian TTH and NFH. The official lines of communication between the German MOD and Eurocopter Germany are via NAHEMA, as is the case with the other countries. However, direct links between MOD officials and Eurocopter are rather strong due to personal networks and language and culture similarity. These ties exist at all hierarchical levels.

¹⁵ Based on economic conditions of January 1st, 1988. This amount equals 331 million ECU.

4.5.2 *The German MOD involvement in the NH90 program*

Like the Dutch minister of Defense, the Federal Minister of Defense in Germany is the head of the Ministry of Defense. Both functions are characterized by its dual responsibility. It performs the functions of a civilian ministry and at the same time it acts as the Defense Forces (Bundeswehr in case of Germany) command authority. Unlike the Dutch Minister of Defense, who has one state secretary at his disposal, the German minister is assisted by four state secretaries. Two Parliamentary State Secretaries assist the Minister in fulfilling his governmental duties. They stay in close contact with the Bundestag (German Parliament), the Bundesrat (Federal Council representing the federal states), and parliamentary groups and they represent the Minister during meetings with these bodies. Focusing on the technical control of the Ministry, the Minister is assisted by two Permanent State Secretaries. One of them is located in Bonn, the other in Berlin. This latter State Secretary is responsible for all armament issues and is therefore of special interest for this study. Together with the Minister of Defense they form the Ministry's Executive Group.

Figure 16 displays a simplified organizational overview of the Federal Ministry of Defense. Actors of interest for this study are displayed with striped boxes. The attention is focused on one directorate of the Ministry of Defense in particular: the Directorate General of Armaments. This civilian Directorate is responsible for defense planning and procurement. The Directorate General of Armaments is under direct control of the Permanent State Secretary and is managed by the Director General of Armaments. Like the Director of the DMO in the Netherlands, the Director General of Armaments acts as the National Armaments Director during international meetings on topics relating to defense materiel. This Directorate is located in Bonn.

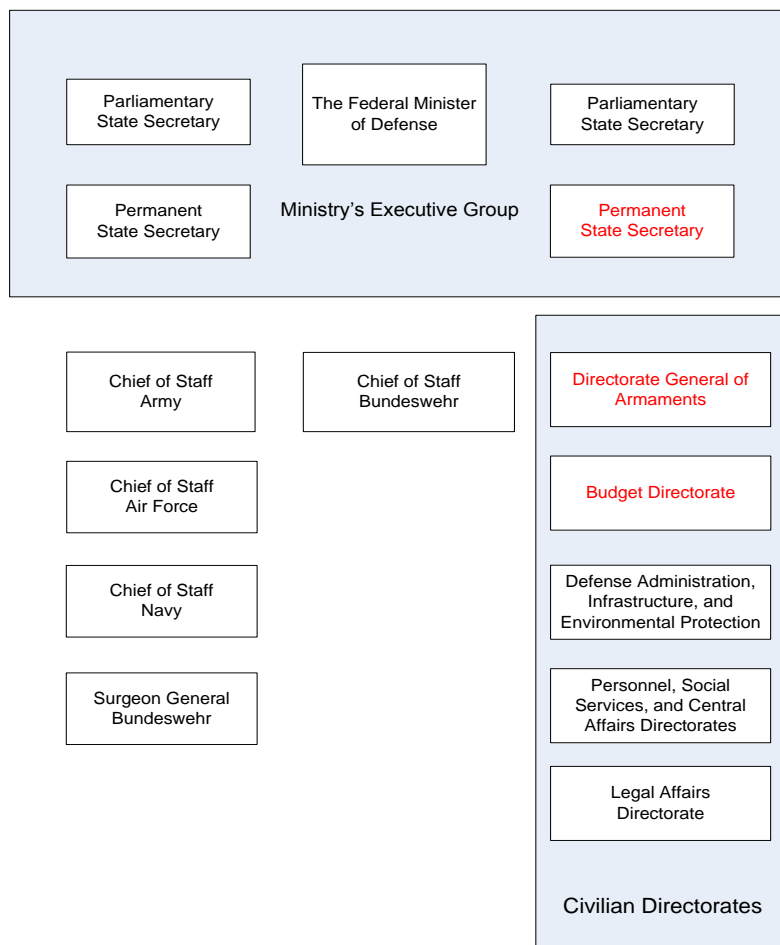


Figure 16: German Federal Ministry of Defense Organizational Overview

Furthermore, the Budget Directorate will draw some attention, as it influences decision making in the BWB. It is this Directorate that is supervising the budgetary claims and contracting affairs of the BWB, while comparing them to the political directions issued from Bonn and Berlin. This specific Directorate is located in Bonn. The organizational divisions that have been part of the data collection process are indicated in contrasting colors.

4.5.3 The BWB Organization

The BWB and its agencies are direct subordinates to the Directorate General of Armaments. It can be depicted as the managerial sector just below the ministerial level. Its main location is Koblenz, but it is supported by several Technical Centers, seven in total, and two Research Institutes that are scattered all over Germany. These agencies provide technical support for the project management at BWB level and they conduct technical and scientific investigations, tests, studies and market analyses (BWB website). The main task of the BWB is 'to ensure that the Bundeswehr demand is met by supplying state-of-the-art technology and modern equipment at economic conditions (BWB website). The BWB is therefore responsible for research, development, procurement, and maintenance activities. This also includes the implementation of new materiel (except for information management and information technology items, which are located in separate directorate) and, like the DMO, the disposal of abandoned goods.

The BWB is headed by a president and one vice-president. They are supported by a controlling office and an internal audit group. The BWB has a different organizational structure than the DMO. Figure 17 shows the four project groups that are centered around a specific category: Air, Sea, Land Combat and Land Support. The service departments deal with the procurement of commercial of the shelf (COTS), i.e. non-project based goods (Bundeswehr Strategic Purchasing), economic and technical issues (Economic-Technical Service), and administrative affairs (Central Services).

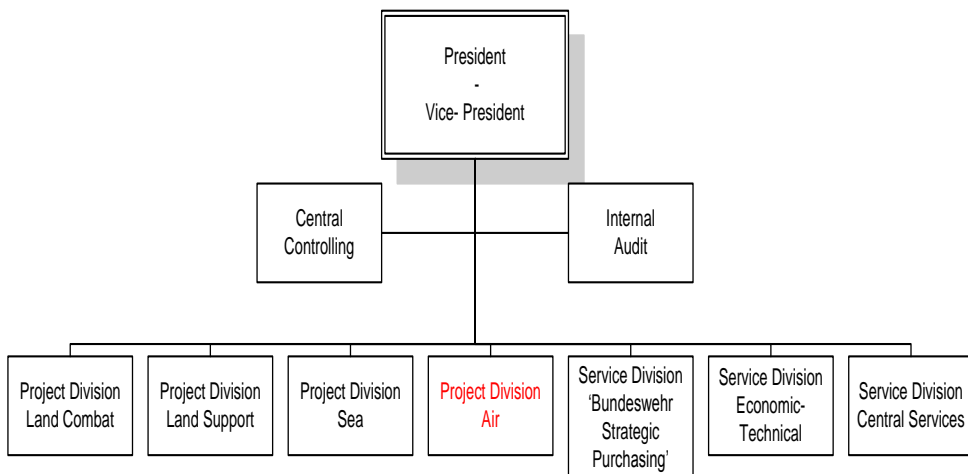


Figure 17: BWB Organizational Chart

For this study, the attention is directed towards the Project Division Air (Projektabteilung Luft). This Division is responsible for all flying equipment of the Bundeswehr. This includes associated weapons, sensors, and the subsystems on the ground. The Division leader is supported by a staff and a controlling branch. Figure 18 shows the branches that are subordinate to this particular Division leader. The helicopter branch is of particular interest as it resides the NH90 project team. This project team is headed by a project leader and consists of fourteen team members, including two deputy managers. One is responsible for all aspects concerning the helicopter before it is in use. This involves for instance contracting and testing. There is also an in-service manager, the deputy manager who is responsible for the helicopter after it is accepted. The project team is assisted by members of the project service branch specialized in negotiating and contracting. Furthermore, there is no controller directly involved as a team member, as is the case in the Netherlands.

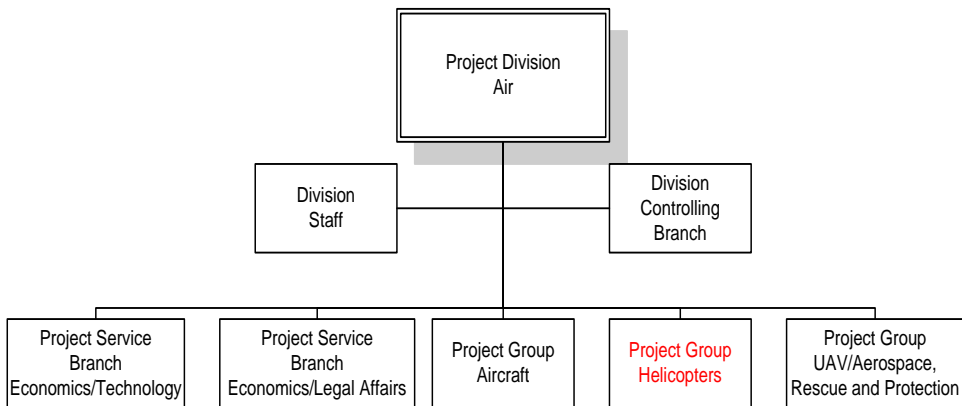


Figure 18: Project Division Air Organizational Chart

Although the Project Service Branch on Economics and Legal Affairs provides managerial know-how on contracting and negotiating, this branch is not involved in this study. Their specialists are conducting their activities on behalf of the Project Group Helicopters and as such are considered part of this group.

In conclusion, the German MOD involvement is to a large extent similar to that of the Netherlands. It is the state secretary that is involved and responsible for defense materiel procurement and it is the Director of Armaments who acts as the National Armaments Director. Also the matrix-like organization between the NH90 project organization and specialists from other branches is similar. Differences exist due to the direct involvement of the Budget Directorate in the German MOD and the differences in sheer size of the

project groups. Furthermore, the German BWB is a civilian directorate as opposed to the Dutch DMO, that consists of 80 percent military and 20 percent civilian personnel.

4.5.4 Status Quo

The new NH90 is to replace the aging Sea Lynx helicopter and, even more so, the Sea King helicopter types which are in service since 1975. For this purpose, Germany committed itself to buy 134 NH90's in the TTH configuration. In addition, it intended to buy 47 extra TTH's and 38 NFH's, pushing the amount to 219 helicopters in total (D&D MoU). In 2009, the German BWB bought 80 TTH's for their Army, 54 NFH's for the Air Force (including 12 optional), and they placed a contract for an additional 30 Maritime versions of the NH90, the MH90, for the Navy. The initial costs were estimated in 1997 at a total of twelve billion Deutsch Marks, an equivalent of 6.14 billion Euros, for 243 helicopters. Current costs have risen to 4.6 billion Euros for 122 helicopters in 2010 (ARD, 2010). With reference to the delivery plan, the German Bundeswehr is facing the same problems as the Dutch Defense Forces. According to the PI-P MoU and the attached delivery schedule, Germany should receive their first NH90's in 2004 (PI-P MoU, 2000, annex A and B) or even in 1997 according to the General MoU (General MoU, 1990). However, the first delivery took place on December 13th 2006, when three TTH helicopters received their German type certification (NHI website). According to delivery planning, the remaining helicopters will be entering service in the German Bundeswehr till 2017 (PI-P MoU, 2000, annex A and B).

4.6 Stork - Fokker

Fokker's involvement started with the feasibility study in which the company participated and its status became even more official when the Inter Company Agreement was signed in 1992. From then on, Fokker was one of the four 'Partner Companies' responsible for the development, production and service of the NH90. This chapter describes the participation of Fokker in the NH90 project, its organizational changes and mergers, the products and services it produces and the involvement of organizational members in the NH90 project organization.

4.6.1 History

Dutch companies were involved in the NH90 project from the early beginnings. Fokker, HSA (Hollandse Signaal Apparaten) and DAF SP combined their efforts to establish a Dutch footprint in the project based on highly innovative and technological contributions (Tweede Kamer, 1986-1987). In 1990, the secretary of state for defense concluded that Dutch participation in the development and production phases would officially involve Fokker and DAF SP (Tweede Kamer, 1986-1987). This resulted in the official statement in the PI/P MoU that Fokker Aerostructures BV would be one of the four 'Partner Companies' and as such would take part in the NHI consortium (PI&P MoU, 2000). The contribution of DAF Special Products would focus on the intermediate gearbox and the landing gear of the NH90. However, in 1993 the company went bankrupt and after several cooperative efforts with other companies, it would finally end up as part of RDM Technology in 1998 (Volkskrant, 1998a, b). RDM Technology reorganized the company into a concern specialized in military land based vehicles and aircraft components and renamed it to 'SP and Vehicle Systems' (Crolla, 2008; Trouw, 1993). Although this company continued its participation in the NH90 project, this could not withhold another bankruptcy. In 2004, former DAF SP was sold to Stork NV. Within the Stork holding it was again renamed, now to Stork SP Aerospace.

Focusing again on the main Dutch contractor in the NH90 project, Fokker went through some turmoil as well. In 1987, Fokker was confronted with financial havoc. These problems mainly originated from currency fluctuations and heavy investment costs (Van der Zwan, 1996). The Dutch government invested an equivalent of 100 million Euros to improve the company's financial status, but it also insisted that Fokker would look for a 'strategic partner' to overcome its financial distress. Five years later, in 1992, a partnership agreement was signed with Deutsche Aerospace AG (DASA), a subsidiary of

Daimler Benz (Office for Official Publications of the European Communities, 1993; Volkskrant, 1995). It was this company, or rather its supervisory board, that in 1992 signed for the survival of Fokker, but was also responsible for its death warrant in January 1996, when it decided that no more money would be invested in Fokker. In March 1996 Fokker went officially bankrupt. Several divisions of Fokker were then bought by Stork¹⁶, resulting in Stork Aerospace, renamed in 2010 to Fokker Technologies, a subsidiary of the Stork holding.

With reference to the NH90 project, several Stork divisions were involved in the program. Fokker Elmo, for instance, teamed up with Agusta, to provide for sonar related systems of the helicopter, while Stork SP Aerospace, former DAF SP, produced the landing gear and intermediate gearbox. To complicate the insight in the mergers and renaming of the different divisions, Stork decided to highlight the branding of Fokker by renaming their aerospace related companies to Fokker again (Stork Press Release, 2010). This meant that Fokker, although still part of and fully owned by Stork, re-entered the NH90 program under its own name. For sake of clarity, the following section will provide an overview of the current organizational set up of Fokker Technologies with a focus on the parts that participate in the NH90 project.

4.6.2 *Fokker Technologies*

Fokker Technologies is divided in five business units. These units are displayed in figure 19. Divisions that are of particular interest for this study and that have participated in the data collection process are indicated in contrasting colors.

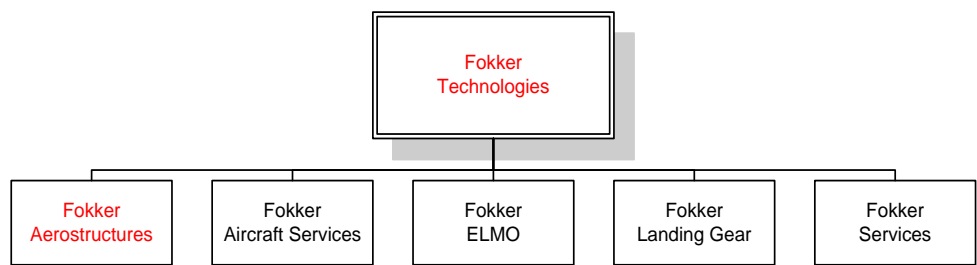


Figure 19: Fokker Technologies, Business Units

¹⁶ Divisions that were bought by Stork included Fokker Services, Fokker Aerostructures and Fokker Elmo.

The Fokker Aircraft and Fokker Aircraft Services divisions do not play a role in the NH90 project and will therefore be left out of the overview. Although Fokker Services and Fokker Elmo are associate partners in the program and remotely involved in the management of the program, the focus of this chapter will be on the Landing Gear and Aerostructures divisions.

Fokker Landing Gear was involved in the project from the very moment the project took off. During the feasibility phase it was the Special Products department of DAF who entered the program and together with Fokker took a leading role in the Dutch participation. Later renamed to Fokker Landing Gear, this unit designs and develops landing gear for both airplanes and helicopters. It is furthermore able to test and qualify the landing gear and to 'MRO' (maintain, repair and overhaul) its products. In addition, the intermediate gearbox is produced by this unit.

Fokker Aerostructures is a business unit that, like DAF SP, participates in the program from the early beginnings. This unit is considered the contracting partner in the NHI consortium (PI&P MoU, 2000: 7). Fokker Aerostructures designs, develops and produces light-weight structures for the aerospace and defense industry. It is this unit of Stork that delivers the tail, doors, and sponsons of the NH90.

The Integrated Program Office

To provide for accurate management capabilities, Fokker developed a designated project organization for the NH90 program, the integrated program office, or IPO¹⁷. The rationale behind this particular set-up was that Fokker normally operates as first or second-tier subcontractor or build-to-print supplier. However, in the case of this specific program, Fokker was had to interact up to the highest managerial levels of the NH90 consortium and had to play an active role in the decision making processes. Fokker then reasoned that these additional tasks should be separated from the normal, day-to-day business from the strategic units by integrating them into this IPO. This office takes care of the international coordination and contacts and acts as a mediator between NHI and the Fokker units. In standard situations, Fokker was used to accept orders with measurable parameters. For instance, a specific part for a Boeing (which part is not relevant) should be able to conduct 100 kilo Newton over a length of 1 meter. In case of the NH90 project, the requirements in the contract were formulated less specific and more operational: this helicopter should be able to land on a ship at sea, with Beaufort wind force 5, sea state 5, on deck of a vessel

¹⁷ Not to be confused with the International Programme Office (IPO) 'NAHEMA'. The Fokker IPO is currently known as European Defense Business Line (EDBL).

type X etcetera. It was then up to the IPO to ‘translate’ these requirements into requirements that the units were used to. These units, or OPCO’s (operational companies as they are called within Fokker) would not need to change their daily routines, which was to design and produce components based on specified parameters.

The task of contacting, coordination, interpretation and translation are executed at the IPO. The organizational lay out of this office is displayed in figure 20.

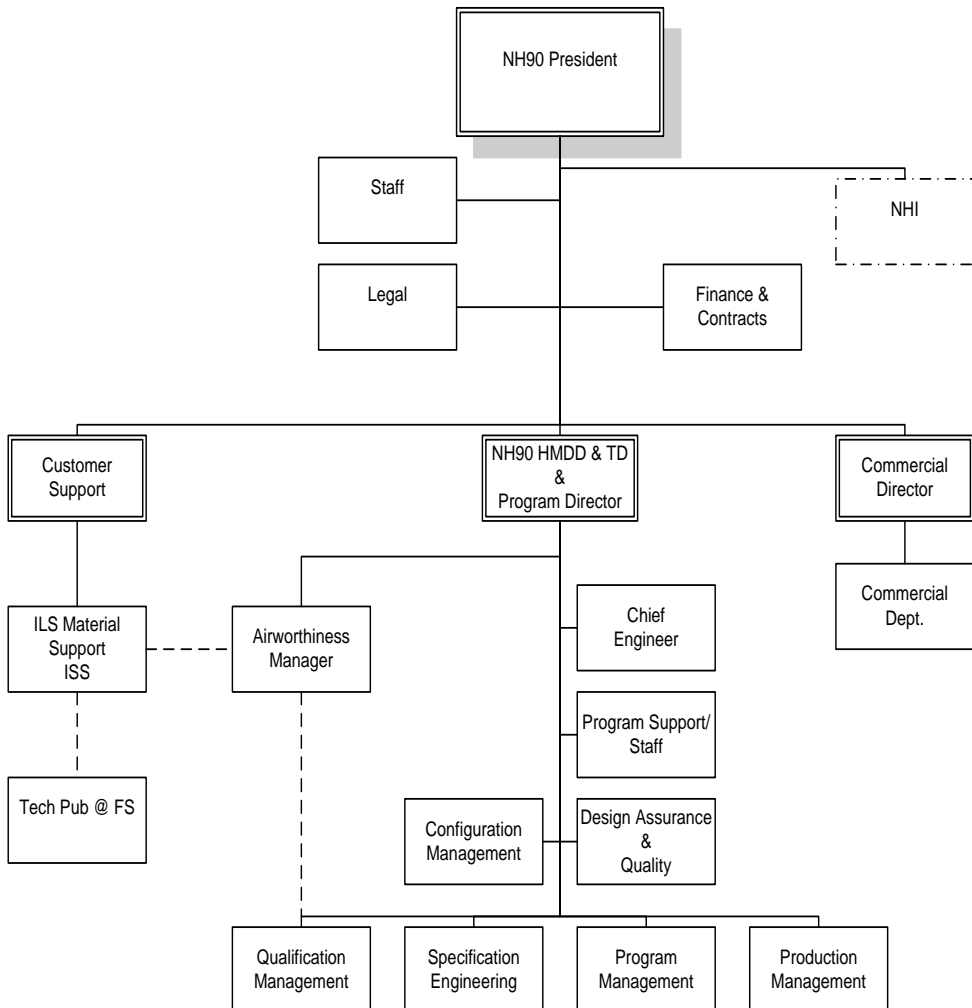


Figure 20: Fokker's NH90 Integrated Program Office

The responsibilities of the president of the IPO are in fact a representation of the IPO functionality: first, he is responsible for an efficient and effective operation of the IPO, including the cooperation with the Fokker units involved in the NH90 program. Second, he is a member of the Supervisory Board of the NHI consortium and as such representing the Fokker vote within the consortium. The other boxes indicate the different specialists within the IPO of which most speak for themselves. The total number of people working within this organization fluctuates between 25 and 30 members. The dotted 'NHI' box consists of ten Fokker employees, working at the NHI site in Aix-en-Provence.

4.6.3 *Status Quo*

The organizational set-up of Fokker's IPO represents the organizations' adaptation after the JVA was signed. The IPO was rather hierarchical in nature to match the NHI construction and to be able to address issues at the appropriate level. After approximately two years, the set-up slightly changed. The organization chart remained unchanged, but the processes within the IPO became less hierarchical and more focused on cross-sectional team work. Fokker constructed dedicated teams that are grouped around several areas, like non-recurring engineering, production, and integrated logistics support.

Although the program director seems to have a hierarchical position over his subordinates as depicted in figure 20, this is not the case in real life. This position is kept in place not only to finish some ongoing issues that remained from the former organizational set-up, but foremost to retain an extra hierarchical layer. This enables Fokker to escalate issues between hierarchical positions without having their counterparts to discuss issues with the same person after the issue was escalated.

At the time of this study, NHI, and therefore Fokker as well, signed contracts to design and produce 529 helicopters in total¹⁸. Fokker is currently shifting its attention towards the in-service support phase of the NH90¹⁹. Within the Stork holding, it is Fokker Services that will play a major part in this future operation of the NH90 program.

¹⁸ This includes both TTH and NFH versions and contracts to NAHEMA and non-NAHEMA customers.

¹⁹ Jaarverslag Stork 2009.

CHAPTER FIVE

CONTEXT FINDINGS

Chapter 5 Context Findings

5.1 Introduction

The goal of this chapter is to display the context that affects outward oriented organizational influencing. In order for influencing to occur, two conditions need to be fulfilled. First, there has to be a conflict of interests (otherwise there is nothing to influence). Second, parties need to have room to maneuver (when e.g. a contract should strongly restrict any opportunity to act, no influencing can take place). This chapter describes the conflicts of interest and the room to maneuver around the NH90. In line with the theoretical chapter, this findings section starts with 'context' to better understand the constraints and opportunities that the organizations face during the project. It shows what diminishes room to maneuver and what enlarges it and it shows how differences of interest occur and how both characteristics affect outward influencing. This chapter closes with a combined model of the contextual characteristics that affect organizational outward influencing.

5.2 Context

This section provides an overview of the environment in which the project partners act. The following sections explicate in detail the boxes of the initial framework shown in Figure 21. This section concludes with an overview of the total, extended framework.

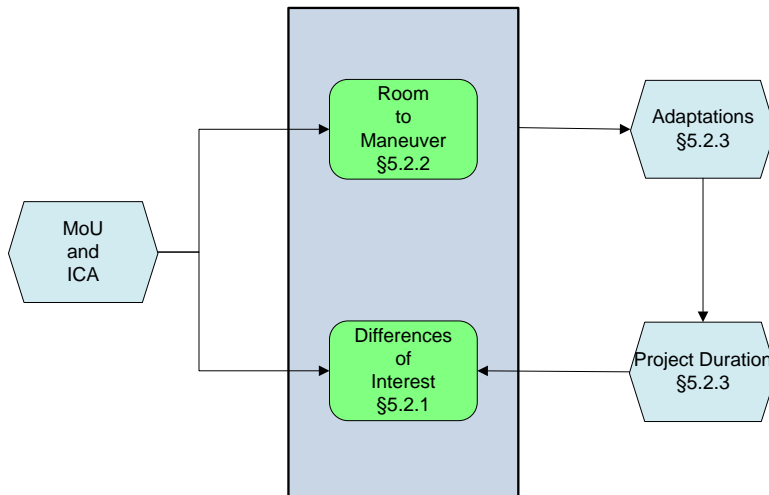


Figure 21: Initial Framework - The Context of Influencing

Before describing the first part of the framework, ‘MoU and ICA’, the following section describes the timeframe in which the NH90 project was initiated, to put its set up in perspective and to better understand the line of reasoning that resulted in this specific project organization.

Timeframe

The memorandum of understanding explicated the organizational structure of the project. The initial set up of the NH90 project originated from ‘a kind of dream’ as a NAHEMA top official declared, to develop a strong European defense industry. This perception, in this particular timeframe, had an important effect on the project. A Dutch project leader stated:

“In the Netherlands, we were very ‘Europe’ orientated in those days, in the 1980’s. Everything had to be done European. The WEU, NATO. We were very committed to invest in an European helicopter or airplane industry”. (D9)

This Dutch perspective was shared by respondents from other countries. In the late 1980s, European countries tried to cooperate to enhance their defense industry. However, the partners within the project are not necessarily the nations that would offer the largest or most important contributions to this dream or even were in dire need to receive a push

forward to boost their national defense industry. The UK with a large industrial base, for instance, left the project, whereas the Netherlands did participate while, according to Dutch politicians, ‘the Netherlands don’t have a defense industry, [we] have a defense related industry’. With France, Germany and Italy, the project nevertheless included three significant European players in the defense manufacturing business. With the nations, the respective industries followed. Within the specific context of defense materiel procurement, it is very common to include their national industry into the project. According to a BWB official:

“If you wanted Italy to participate, Italian industry had to be in. If you want Germany to participate, then German industry needed to be in. If you want to have the Netherlands involved, Dutch industry had to be in. It’s simple as that. (B3)

Although the participation of several industries was common practice from a political perspective, the nations knew in advance it would not necessarily be beneficial for the project as a whole from a business administration point of view. A NAHEMA director offered an example:

“You shouldn’t split up within a project. I’ve worked with an American company that uses the square root function for workshare profit. So if one nation participates it means the price times one root, two nations times two, three nations times three, etcetera, leaving less profit every time an extra nation enters the project. That is because the costs increase accordingly. [...] By that logic, we pay double prices. If we didn’t apply a workshare agreement and we had just one lead nation, we could have had the product for half price. And then for example we could say: Italy can have the lead in the next project’. (N4)

On the other hand, based on budget argumentation, there is a shared believe that not one single nation could have pulled off this project on its own. A teamed effort was therefore necessary and with the associated workshare agreements that are common with these projects, the result was an enforced cooperation between nations and between competing companies. As this study focuses on influencing activities *during* the project and not on partner selection processes *before* the project, the next section holds the MoU, the ICA, and its forthcoming as a fact. As stated earlier, both documents define organizational structures and processes between the participants. Structures and processes both have an impact on organizational influencing. Section 5.2.1 zooms in on the relations between the nations and their industries based on these formal agreements.

5.2.1 Sources for Differences of Interest

Differences of interest, together with the room organizations have to maneuver, are the key characteristics that shape the context of influencing activities. This section elaborates on the factors that influenced the differences of interest, while paragraph 5.2.2 will focus on the ones that affected the room to maneuver. These factors are displayed collectively in table 8.

| Document Source: | Differences between: | Cause: | Affects ²⁰ : | |
|------------------|------------------------|--|-------------------------|------------------|
| | | | Differences of Interest | Room to Maneuver |
| MoU | Nations | - Legal Environment | + | |
| | | - Technological/operational embeddedness | + | |
| | | - Mandates | | + |
| | | - Politico-economical goals | + | |
| ICA | Industries | - Competition | + | |
| | | - Unanimity | | - |
| | | - Transparency | | - |
| | | - Mandates | | - |
| MoU and ICA | Nations and Industries | - Transparency | | - |
| | | - Workshare | + | - |
| | | - Buyer-Supplier relationship | + | |
| | | - Contracts | | + |

Table 8: Sources of ‘Differences of Interest’ and ‘Room to Maneuver’

²⁰ A ‘+’ indicates an increase in the room to maneuver or the differences in interest. A ‘-’ indicates a decrease in the room to maneuver or the differences of interest.

Figure 22 is the ‘MoU and ICA’-part of the initial framework and a visualization of the ‘differences of interest’ part of table 8. The following section describes the findings of the case studies as displayed in figure 22, from top to bottom.

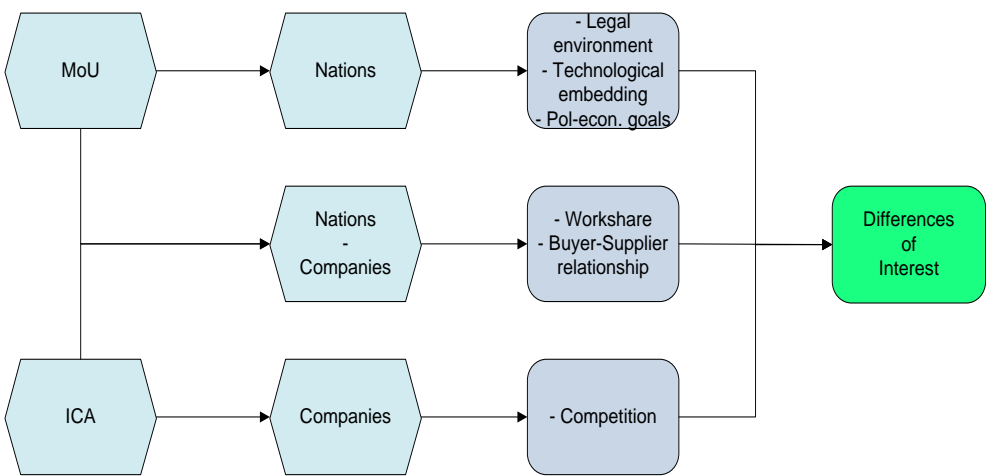


Figure 22: Differences of Interest

Relationship between the nations

Following the visual presentation in figure 21, the MoU is not only the starting point of this framework, but from the NH90 project as well. Considered as the legal basis of the project, it connects the nations on a structural basis. Earlier chapters already revealed the necessity of cooperation between multiple nations to be able to develop and procure a state-of-the-art product as the NH90. Together with this necessity of cooperation, some contextual factors entered the project that affected the influencing processes of the participating nations.

First aspect to mention is the **legal environment** in which the nations find themselves. Although the European Union tries to establish unilateral aviation law and procedures for its member states (Schnitker, 2010), European legislation does not provide for collective airworthiness authorization procedures. NAHEMA is responsible for the approval of the helicopters but is not the legislative body that has a decisive say in these matters. Differences in legislation therefore give rise to many issues at NAHEMA, as the following quote by a NAHEMA director illustrates:

“Especially in the area of airworthiness that’s a big problem, because the nations are not allowed to deviate from their national legislation. Well, then you see that in Italy regulations differ from those in the Netherlands. Pfff...try to reconcile them.” (N4)

National legislation is to a certain extent culturally determined, and so is the way nations (and of course its inhabitants) comply with it. Another NAHEMA director exemplified this as follows:

“This heterogeneity of the four or six nations prevented the program to be finished any faster. We have seen now two nations [...] Germany first, then Italy, so we can already compare how they accept the helicopter. It’s a huge difference. A huge difference. The Germans were very accurate and not willing to compromise. And as an example, the helicopter was grounded for more than half a year, because the documentation, the flight manual, was not exactly representing the helicopter. For Italy, this was only a subordinate problem and now, even now the Germans have the helicopter twelve months earlier than the Italians, the Italians have already flown twice the flight hours than the Germans. You can see, there’s a really huge difference in the perception of how to accept the helicopter.” (N3)

A second issue that affected the influencing arena of the NH90 project was linked to the **technological embedding** of the helicopter. Embedding the helicopter into the operational units caused some problems. On one hand, the helicopter ought to be linked to the nations’ own military systems, while on the other hand the helicopter should operate in an international setting and these two systems did not always perfectly match. Consequently, nations had to cope with their own national operational interests and the international operational interests. Interoperability was the key word to solve this issue.

In the beginning, the nations had a common vision on interoperability. This would be established by producing one helicopter, in two variants. This would not only be beneficial for future military operations, but should also have a positive effect on an effective and efficient manufacturing process. A high ranking BWB official concluded:

“In the beginning, if you start such a program, you must come to a single specification. If you don’t achieve that, you are running into difficulties.” (B3)

As a matter of fact, the nations actually did come to a single specification. During the start-up phase and during the development phase, all requirements were similar for all the nations. A German project leader mentioned that the variance started with the production contract. It was not until then that the countries started thinking about what they really wanted, into detail. In the development phase there was only one contract, consisting of a TTH variant and a NFH variant. After the production contract, the nations slowly gave up their shared idea on interoperability and decided to go their own way, i.e. to place so called 'national contracts'. Contracts that were only applicable to that particular nation. NAHAMA did however try to align the different interests of the nations, but was not able to succeed all the time, as a BWB official clearly exemplified:

"I think it is necessary that the major objective is always to stay together in the international cooperation and to place a contract for all the participants within the program. But unfortunately we failed to do that quite a lot. We were forced to place some national contracts because there was no progress on the international cooperation. As a result, we finally decided in Germany, we were going on our own. So we had to place national contracts and we had to leave the international approach." (B6)

Interoperability is very difficult to achieve, especially because it is not up to politicians and project leaders alone to decide what equipment should be abandoned and what equipment should be the collective standard on the new helicopter. Especially radio equipment, radar and weapon systems are intertwined with other systems that are used in the armed services and these systems do not always match between the nations. It is of no use incorporating a radio system that allows you to communicate with NH90s from the other nations, but that will not let you communicate with the ship that you are supposed to land on. Or to use a radar system that is unable to transfer its data to its own ground stations. Consequently, changing systems on the helicopter for the sake of interoperability had a major impact on the organization of the respective armed services. From that perspective, it appeared to be cheaper for each nation to leave international cooperation for what it was, and as a consequence interoperability as well, and to place national contracts to customize the helicopter to its specific needs. The result of that, however, is a whole array of different versions. Although some versions differ more from each other than others, each version had to be designed, developed, produced and tested, resulting in extra delays and costs. Respondents had opposing views on the differentiations between these helicopters. Some stated that the platforms are the same and only several system packages vary, while others claimed that every version is a complete new helicopter.

To summarize the above, teaming up with partners that have different interconnecting systems should ring some alarm bells. A univocal set of operational requirements that match the systems it has to connect with, on the other hand, would strongly diminish differences of interest.

To continue the focus on differences of interest between the nations, the focus now shifts from interests related to their operational clients and partners to their politico-economical interests. In case of the NH90 project, the relation between one state and its industry differed from the other. The respondents, for instance, perceived the relation between the Italian and French governments and their industries as very tight. A tight relationship means in practice a protective relationship, or a 'sponsored' relationship, as a Dutch politician mentioned. The perception of most respondents was that French and Italian companies, although officially privatized, were still acting as if state-owned. This was mainly because top-ranking management positions were appointed by the state. This was not the case in the Netherlands, where there was no such relation between government and the companies. With reference to that, a Dutch politician mentioned the following:

"[...], with these appointments in France, the state has a enormous say in them and can do a lot with them. They are spending money on it, subsidizes it one way or another. We are not allowed to know how it works, but of course it happens. [...]. With Stork...we have nothing to do with Stork. The Dutch Government. Absolutely nothing. They should be able to fend for themselves. [...] The Dutch government doesn't protect them." (D2)

These differences in relations gave rise to the perception that Stork felt short changed.

"These audit departments assess the prices. Are these prices true and fair, what margins are included? And we know the French, the Italians, and the Germans have another look at their industry than how we deal with Fokker. And that means that Fokker is often done for in relation to those other companies. Because we say: well, you count these spare parts in, and that margin, but that's not what we agreed upon. That's too expensive. The Dutch audit authority is not allowed to assess Germany or France. We respect each other's rules. But Fokker is complaining, and from their perspective quite rightly: look, they are allowed to earn those margins, why not me? So...that's Fokker's problem." (D9)

This would mean that there is a difference in **politico-economical goals** the nations pursue: instead of trying to get the best price for their product, protecting their own industry is of even higher importance. Only with a cross-national auditing ability (and for this adapted legislation) this problem could be overcome. Without national and international regulations, however, this dilemma is very difficult to solve. Differences of interest between the nations therefore remain, including a perception of unfairness between the companies.

The Nations and Their Industry

The fact that **workshare** agreements are common practice in defense development projects has been mentioned in this chapter. A NAHEMA director referred to this as 'industry always follows nations'. He furthermore explicated that the nations wanted to keep the work in-house, based on a often used saying: 'no money across the borders'. Every nation who had a major share wanted 'their' company in the program. There is an obvious, political interest to get national industry involved. As a BWB director responded:

"Each nation has an interest to get as much money back from his investments into his own industry." (B3)

The focus of the nations therefore does not only seem to be directed towards developing the best product (this would be a competition between nation-independent companies), but introducing and protecting their own nations' defense industry, as mentioned in the former section. The interest of the nations is to a large extent related to workshare. And the workshare pie is just as large as it is. Getting a bigger slice will always be at the cost of another nation. The political stance of obtaining workshare is logical and justified by the fact that nations are spending public money. Their objective, to get as much product for as little (public) money, is discussed more in-depth in the influencing practices section. This goal also illuminates an important antagonism between the partners in the project and that is their **buyer versus supplier** status. The contradiction in objective (to get as much for as little versus provide as little for as much as possible) is clear, well known, and also accepted, as long as it stays within reasonable margins. With reference to Zabusky's ESA study in chapter one (Zabusky, 1995), the NH90 project suffered the same condition: cooperation and conflict in close harmony:

"[...]. But we need to be in a confident mode and it is clear that there is no trust between nations and industry. It is more a conflictual mode than a cooperative mode. We know that. The industry has its own

objective and the bottom line is important in the industry. They need to make profit. For me it's not a problem. A margin, a reasonable margin is a way to make a contract. And it's not a problem. I believe we should have a more cooperative way. We cannot have the same objective, but we must focus and use what is common, more than fighting about what is different in our approach. It is difficult in an international program.”
(N1)

The buyer-supplier contradiction depicts differences in interest. This problem was solved to a large extent by the ‘Bonn-agreement’, in which the nations agreed on a fixed price for the helicopters, including a fixed percentage of profit for the participating companies. This however, exposed another issue: **transparency**. As transparency affects ‘Room to Maneuver’, this characteristic will be explicated in that specific section (§ 5.2.2).

Relations between the private companies

To connect costshare and workshare, the helicopter was split up in several parts²¹. These parts were designed, produced, and tested by companies originating from the four founding nations. Fokker from the Netherlands was not a helicopter manufacturer, but a producer of components used in the aerospace industry. Eurocopter and Agusta, on the other hand, were full scale helicopter manufacturers and, more important, competitors on that same market. This introduced severe friction in the NHI consortium. A Fokker director noticed that both companies always prioritized their own interests, with reference to the allocation of personnel, finances, and production facilities, before the interests of the program. In his opinion, **competition between the companies** really hampered the program. This tenacious attitude towards each other was exemplified by a Fokker IPO employee:

“Three, four years ago, we needed to qualify the TTH. All the different variances. But we needed to make a schedule, because there were planning difficulties. So we said, ok we let the NHI board decide which one goes first. But Eurocopter of course thinks its interests are most important and so did Agusta. And this really resulted in delays, because no decision was taken. [...]. And as an additional result, Fokker had to pay the penalties as a consequence of these delays as well!” (F5)

²¹ See chapter 4, § 4.2.5

Being a full partner offered the ability for an organization to influence its partners just as much as it was influenced by them. That was a positive effect of the 'participation' principle of the ICA: you have a say in everything that affects you. However, a down side of being a full partner was the risk sharing principle. Or to be more precise: the guilty party principle (ICA, 1992). NHI applied this principle before the new joint venture agreement of 2008²². Although this principle had a basic and very logical rule (whoever is guilty pays the fine), the result was not that simple. It had the disadvantage that because of the complex intertwined relations of the several subsystems of the helicopter, it needed endless discussions to decide who was to blame for damages, faults, or delays. This set-up created an arena of conflicting interests.

A partnership between competitors, unanimity, and the principles of the ICA proved to endorse an environment in which the industrial partners were able to pursue their individual interests. There was, however, a bonding characteristic that linked the companies together: making money. Because the helicopters of the NAHEMA countries were sold on a fixed price agreement and the development costs were considerably higher than expected, profit was to be taken elsewhere. This opportunity was offered by the so-called 'export countries': countries that did not belong to the NAHEMA nations or their community partners. Although the export countries were not represented in the NAHEMA-NHI organizational chart, their existence did affect the influencing arena. Deals with these export countries were not restricted to former agreements or contracts and therefore more profitable margins could be obtained. From this point of view it made sense that the companies were more interested in doing business with the export countries than in doing business with the founding nations. These nations on their turn felt they were put aside in favor of the other clients, while they invested heavily in the program. Again, differences of interest in a complex NPD arena.

Differences of interest are of utmost importance when studying the concept of influencing: if there are no differences of interest, there is little to influence. However, besides these differences, actors also need to have the ability to express these differences and to pursue their interests. Section 5.2.2 will discuss the idiosyncratic characteristics that affect the room organizations had to maneuver within the boundaries of the project.

²² In the new joint venture agreement this was changed into penalties based on stock share ratio. Although this set up also will have its pro's and con's, it has not been subject of analysis during this research.

5.2.2 Room to Maneuver

The former section expressed the structural components of the MoU. In addition, the MoU also entailed descriptions on intellectual property rights, liability agreements and, among several other items, dispute settlement regulations. This section demonstrates how context, a NPD environment in particular, affects the room that organizations within the NH90 projects have to maneuver. Figure 23 shows an enlarged, graphical display of the ‘room to maneuver’-part of the initial framework.

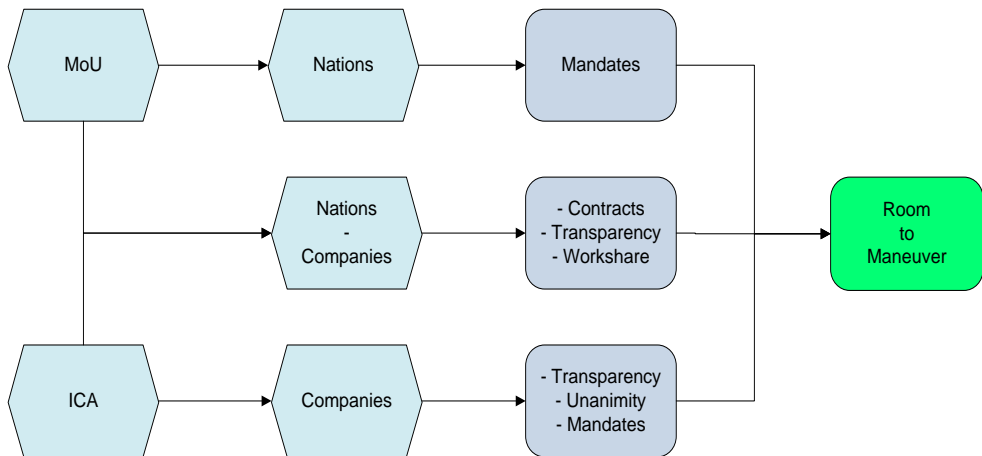


Figure 23: Room to Maneuver

Relationship between the nations

The structure of the program involved two representatives: NAHEMA for the nations and NHI for the industrial partners. On paper, these two organizations had to align their rank-and-files and other stakeholders after which they could come to an agreement on the contracts in order to sign them. In reality, the **mandate** given to the representing parties was rather thin which led to a decrease of authority for both NAHEMA and NHI during the negotiations between these two parties. The perception was that the nations did not believe NAHEMA would aim for the best result possible.

“Often we do not have a full mandate from the nations. It is sometimes difficult... I was really frustrated at the beginning here in this position not having a clear mandate from the nations, while they are telling us: ‘Ok, you have to negotiate and you have this mandate and if you are

able to reach an agreement inside the mandate it will be fine'. And we are trying to negotiate with industry not knowing exactly what is acceptable by the nations. And really, it is frustrating. I understand that it is sometimes a lack of confidence from the nations. They are afraid that if they give us a mandate and the mandate has three dimensions and the target is somewhere in the middle of the triangle, it should be acceptable if the result is everywhere within the triangle. But it seems that the nations are afraid that as soon as we are here, slightly besides the initial goal, we will be happy and settle. But they will be happier if we reach the initial target, a better position, and that is a reason why they don't give us a clear mandate and so we are never sure that our result will be agreed by the nations. And for us it is a weakness in our position. Because when we are negotiating with industry, we believe that we have a fine agreement, but that we have to sell this agreement to the nations and when it is rejected we have to go back to industry explaining: 'Ok, we believed that we had a nice agreement but we were wrong, we have to discuss again'. Really, our position is poor at this time." (N1)

NAHEMA constantly had to consult the nations. This was a time consuming process, because they first had to establish their own position, then they needed to propose this position to the nations, they had to align their interests and then, after mutual agreement, the proposition was offered to NHI. But NHI suffered from the same problem. NHI had to consult the parent organizations and the same process repeated itself. The reason for this lack of mandate was that the nations did not want to hand over the control to a third party. They wanted to stay flexible, as a NAHEMA contract manager stated:

"[...] their [the nations] flexibility is in fact their power to maneuver, and they would not let that go." (N6)

A lack of mandate offered the nations and the partner companies the ability to constantly influence the negotiations. But this lack of authority, on both sides, was not the only possibility that offered the actors room to maneuver. For this second reason, the NPD environment again played an important role.

The New Product Development Environment

The context of influencing in this specific study is the New Product Development (NPD) domain. Kim and Wilemon (2003) identified several sources of complexity that affect NPD

projects, which are already discussed in chapter four. It is therefore necessary to clearly depict the NPD environment as it often induces room to maneuver. Furthermore, specific differences in perspective on product development between the actors in addition to the more general description of the product in chapter four, add to a more thorough understanding of the difficulties the four organizations faced during the process.

In the ‘fuzzy front end’ of NPD projects, the actors involved try to specify as precisely as possible the end-state of the product. Unclear goals and poorly defined end-states may lead to substantial delays and incremental, and often unnecessary changes (Kim et al., 2002; Stockstrom et al., 2008). The problem however, is the human inability to predict the future. Project members from different organizations shared the idea that developing a new product is very difficult, but developing a new helicopter introduced in their eyes a new league in the realm of NPD. A Fokker IPO Manager explained:

“What I have learned in the past in the aerospace industry is that you can calculate when you develop fixed wing aircraft, but with helicopters it’s more trial and error.”(F5)

A Director in the Dutch DMO added to this:

“A helicopter is technologically very complicated. I don’t know if I realized that back in 1992. Maybe it’s a good thing you don’t know, because otherwise you maybe wouldn’t even begin such a project.” (D8)

A NAHEMA division leader went even further, by explaining that this project entailed more than ‘just a helicopter’:

“Building helicopters is difficult, ok, but in addition to that, this is also a weapon platform. It’s an integrated weapon system. Not just a platform with adapted weapon systems.” (N3)

The participants of the project, no matter what organization they worked for, were well aware of the complexity of the product. They also knew in advance, during the fuzzy front end, that they had to build a helicopter that should be state of the art. Not when they designed the helicopter, but at the time the helicopter would be delivered. The project members, on the other hand, were also realistic about the chances of complete success:

“You start with ideas and a list of requirements. They become drawings and calculations and then you start building. And then sometimes they

don't match the requirements. What do you do? Reengineer? Sometimes things are impossible and you have to adapt. [...] Production takes four to five years. So you order something of which you think it's valid at that time. But what if it isn't realized? (D5)

"You cannot always have the newest one. With IT, if you buy it, it's already old." (B4)

These quotes show a realistic view of the participants on the task at hand. The difficult task to engage in a contracting process to define and agree on future requirements and goals. Or as a NAHEMA contract manager stated:

"We try to freeze something that is unrealistic to freeze!" (N6)

The Nations and their industry

Whereas the MoU delineated relationships between the nations, **contracts** legally bonded the agreements between NAHEMA (the client) and NHI (supplier). With reference to the NH90 project, contracts played an important role. So far, the findings of the NH90 project concerning the characteristics of NPD are no different from any other project in this domain. The project members also had difficulties to precisely define future outcomes and they also had to deal with uncertainty, both resulting in open ended contracts. A characteristic described as a normal problem in NPD contracts is the absence of precise specifications. The following quote illustrates a dispute based on the absence of requirements:

"It's a very bad contract if you look at the details of the contract. So yes, for me, in the engineering department, it gave me all the freedom and opportunities I needed. [...]. And then I told them: 'You have to do this and that'. 'But it doesn't say so in the contract'. 'No, but it is also not in the contract you should not do it!' (D1)

In case of the NH90 project however, the problem was not what was *left out* of the contract, but what was *put in*.

"The contract, the specifications are sometimes misleading, there are grey areas, there are wordings which can be misinterpreted, so nations always interpret it very, very strictly. They want it all. Industries were then saying it was not meant this way. It was to all our understanding

and everything we know, it has never been realized in the way you interpret it.” (N2)

The problem in this project was that requirements and goals were stated in such a way that they were multi-interpretable. A real life illustration was offered by various Fokker employees when they introduced the traversing system example. A traversing system is a system that secures a helicopter to the deck of a ship, aligns it with the deck tracks, and in some cases maneuvers it into a hangar. Not all NATO countries use the same system, which in practice means that France, Italy, Germany, and the Netherlands use four different traversing systems. The contract, however, only stated that a single traversing system would be applied to the NH90. All countries agreed on this, expecting it to be their own system. During the production process this anomaly became clear, resulting in discussions on how to deal with this problem. Time consuming debates led to a solution in which every nation kept using its own traversing systems. This meant they would not have to adapt the system on all their ships, although the partner companies did had to adapt four different systems on their helicopters. This traversing example showed that the interpretation of what was actually in the contract, differed among the nations. Aligning these differences to resolve the disputes that accompanied them was very time consuming, expensive, and resulted in the adaptation of requirements.

The issue of **transparency** has already been mentioned briefly in the section on differences of interest. In that particular section it was related to the price setting processes between the nations and the companies. In case of the NH90 project, it was not transparency, but the lack of transparency that raised some concerns. The issue of transparency between the nations and the industrial partners had a legal background. The MoU stated that public authorities were allowed to assess the facts and figures of the partner companies. This would provide full insight in the cost structure of the products and it would also confirm (or disconfirm) the agreed profit margins. The audit sessions were performed by national auditors. This meant that Agusta was assessed by Italian auditors, Fokker by Dutch auditors and so on. These audit sessions only provided approval or disapproval of the cost structures, not full insight for the other partners. This lack of transparency therefore diminished the room to maneuver as the partners had to deal with the given figures as facts with a very limited space to negotiate.

With reference to transparency, it were not only finances that raised problems. The partners were all rather reticent about providing insights in their processes:

“It’s only since a few months that a NAHEMA employee is allowed to have a look at the top level schedule. But not what is behind it! That is

protected. The industry knows for a long time when the first helicopters can be delivered, but they're giving wrong information to the countries and we can't check it. That shouldn't be possible. If you have a project organization, you have to cooperate with the project organization on the other side about details, technical issues, schedules, finances, all aspects." (N4)

Most network organizations exist of organizations that passed certain selection phases. If these companies match the partner profile, composed of certain desired characteristics, they may enter the project (de Man, 2004). The NH90 project, however, incorporated companies that were linked to their national defense organizations based on **workshare**. This specific connection, that ruled out a more open selection process, did not contribute to a transparent communication process between the nations and the companies. The lack of transparency gave an indication of this issue. Furthermore, the workshare agreements were set in stone, which meant that adaptations to the partner structure was almost impossible. The consequence of this settlement was that the partners were basically 'stuck with each other'. Threatening to 'go elsewhere' or to expel a partner from the project was no option. Workshare therefore diminished room to maneuver for the partners involved.

Relationship between the companies

Transparency *between* NHI and NAHEMA has already been discussed, but competition between these companies also affected **transparency within NHI**. Both companies were, to a certain extent, unwilling to share 'sensitive' information. A NAHEMA director declared that it was a continuous battle to get the appropriate information from these partner companies. Especially when it came down to pricing information, they were very reluctant to grant a detailed look into their processes. In practice, they only delivered 'top level' breakdown information²³, because they were afraid the other company could retrieve too much valuable information from more specified data.

A lack of transparency not only hampered negotiation in the boardroom, but also the actual building process. A DMO project leader stated that the everlasting competition between Agusta and Eurocopter prohibited a fair and open way of information sharing. As a consequence, this went as far that Agusta employees were not allowed to inform Eurocopter personnel on technical issues and vice versa. He added that this not

²³ Breakdown information provides insight in the accumulation of the price of a complete product by relating costs to each of the components.

necessarily needed to be a bad thing 'if they had not divided the helicopter into pieces'. At the end you need to connect all these parts and this prompted some difficulties: integrating all the different subsystems.

A second goal of the ICA gave rise to some additional complications. Chapter four described that the concept of '**unanimity**' demonstrated an equal importance of all four partner companies and provided an open and fair relation between the private partners, regardless their size and workshare. Unanimity was offered by veto rights for all the partners. The circumstances for this kind of decision making however were not optimal.

"It's important to realize that within NHI, there are two enormous, fighting competitors [Eurocopter and Agusta]. And they really don't trust each other. How do you deal with that? By grounding everything on distrust. And how do you manage distrust? By doing things on consensus. At least you then have a veto for things you don't really know what's behind your partner's interest." (N4)

A lack of trust not only existed between Agusta and Eurocopter. Fokker considered itself a full, but nevertheless nominal partner. They did have veto rights, but as a Stork director stated: "let's be honest, it's still only five percent." As a smaller company, they were very attentive to the actions of their larger partners:

"We do not entrust Agusta and Eurocopter to make deals with other countries, if I can't check how we're enclosed in the deal with reference to penalty exposure et cetera." (F3)

Furthermore, unanimity also meant that every partner had to decide on every detail of the project. This could also entail systems of the helicopter one of the partners had nothing to do with and knew nothing about either. Every partner for instance had to agree on specification changes. But if they agreed and the alterations would result in penalties, they also had to pay these fines. As a result, partners were quite reluctant to agree on specifications they knew nothing or very little about. This of course slowed down the process quite a bit.

In short, veto rights provide a strong means while defending one's interests, at least from a formal point of view. In practice, the important decisions are taken by the large partners. Nevertheless, unanimity-based decision making allows little room to maneuver as the partners have a latent ability to block proposals.

The issue of **mandates**, or lack of mandates, counted as much for the private partners in the project, as it did for the public partners and has already been discussed in an earlier section. What is interesting to add, is that a lack of mandate for the representing organizations, NAHEMA and NHI, diminished their room to maneuver, while on the other hand it provided more room for the represented organizations. It is therefore important to be aware of the actor’s perspective when discussing the issue of mandates.

One can start a discussion about whether transparency is ‘caused by’ or is an ‘effect of’. From the perspective that every actor pursues his own goals, it would be an obvious observation that they could do without someone looking over their shoulder. In that case, a lack of transparency is caused by a difference of interests. On the other hand, this same lack of transparency is caused by European legislation that prohibits full insights in the financial processes of foreign companies. Either way, transparency in case of the NH90 project is limited and is treated as a contextual fact.

Combining the contextual findings of both the differences of interest and the room to maneuver into a single presentation, results in the framework represented in figure 24.

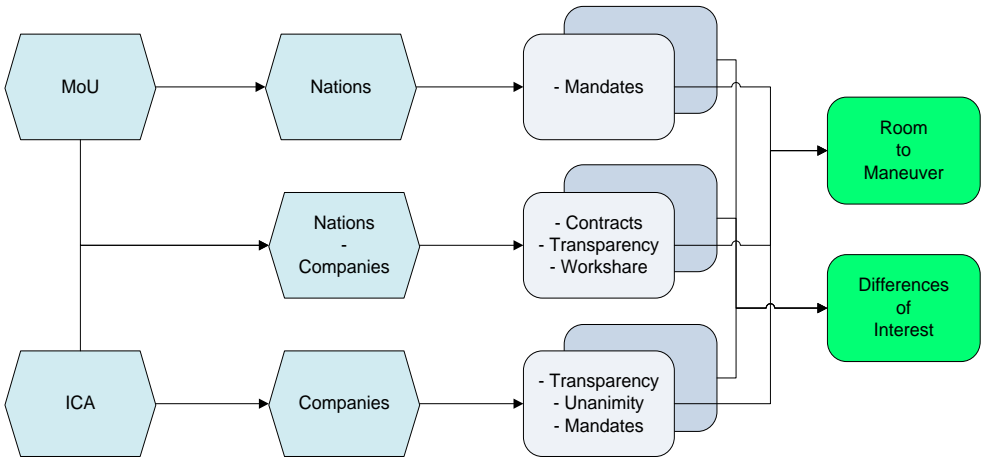


Figure 24: Influence of MoU and ICA

The darker blue boxes in the middle represent the characteristics of the NH90 project that affected the differences of interest, whereas the lighter blue boxes indicate the influence on the room to maneuver. This combined framework represents the part of the total framework that can actual be influenced. The next section elaborates on the right side of

the framework. The part that is to a certain extent the resultant of the left side of this framework.

5.2.3 Project duration in the context of influencing

“... and in the meantime, the world has changed.”(N1)

Figure 25 represents characteristics that affected the influencing process, but that are hard to influence themselves. The central box at this side of the framework is labeled ‘project duration’ and refers to the passing of time while the project lasts. It is an inevitable process that is both influencing the project as it is influenced by the project itself. The following section will explicate this reciprocal process. Figure 25 zooms in on the ‘project duration’ box of the simplified framework presented in the second section of this paragraph.

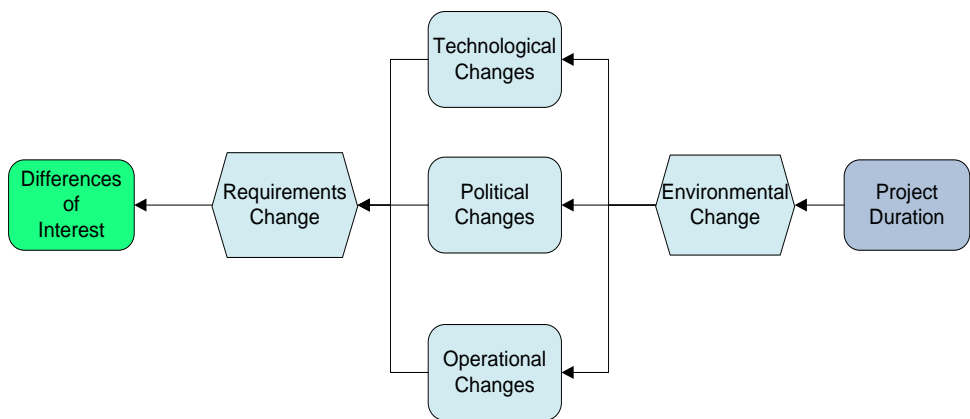


Figure 25: Time Changes

Environmental change

Time has a strong influence on long lasting projects, especially on long lasting projects in a NPD domain. The NH90 project lasted more than 25 years and one can imagine the world has changed quite a bit in so many years. Figure X shows the part of the framework this section zooms in on. It shows that as time passes by, the environment of the project changes. The analysis of the NH90 data brought forward that the environmental changes can be divided into technological, political, and operational changes. The following

subsections will explain why they are part of the project's environment and how they affect differences of interest.

Technological changes

The first part of this section already pointed out that nations were reluctant to commit to something without exact specifications. This is a rather difficult stance when developing a new product. Especially during NPD projects, the outcome is not clear. New products and processes are used and new techniques are applied. But in addition to the uncertainties that are the resultant of starting a NPD project, there are also technologies that evolve outside the project. The fly-by-wire concept for instance, that is now one of the key selling points of the NH90, has only entered the project during the development phase, after it had been applied and tested in jet fighters. It has never been the intention of the initiators to incorporate the concept in the NH90 from the beginning. Another example is the composite materials that are used in the helicopter. Materials that are developed in the 21st century are different from the ones that have been developed for the NH90. It is a normal development and it is impossible to constantly keep adjusting to new improvements. Not a single product would ever see new daylight. The problem however is that the nations want a state of the art helicopter, but not with equipment from 25 years ago:

"But now, the difficulties are starting because we had some obsolescence. And if industry solves the obsolescence with new and better performing computers, who is going to pay for that? They don't want computers from 1985." (N1)

The quote above shows difficulties the partners run into. The clients do not want helicopters with computers dating from 1985, but the industry states that that is what they ordered. If they have to adapt the equipment, it has to be paid for. The same respondent noted that in areas like information and communication technology things change so fast, you can hardly keep up with new developments. To sum up, technological changes in the environment of the project (i.e. that affect the project) generate different demands from the clients and as such change the requirements of the product.

Political Changes

Like technological changes, political can have a major impact on a NPD project. Many NPD projects are induced, encouraged and/or sponsored by governments. John F. Kennedy's statement *"I believe that this nation should commit itself to achieving the goal, before this*

decade is out, of landing a man on the moon and returning him safely to the Earth” (Kennedy, 1961), spurred NASA’s efforts on space missions and is a classic example of political involvement in NPD projects. This involvement often initiates or encourages NPD projects, but as a consequence politicians need to stay informed and they have to decide on important issues. When interacting with several nations in a single project, like the NH90 project, chance of political changes increase. And even if they succeed to extend their shared commitment to the end of the project, the process to finalize it is difficult. The nations have to decide on many topics and often political involvements is required. Taking decisions in a short amount of time proved to be difficult:

“If there is only one nation, you are able to control it a little, but with six nations...Important decisions that involve huge budgetary and planning consequences need to be taken in a timeframe in which a nation is able to decide on these kind of issues. There are certain periods that a nation is unable to decide on spending a billion more or less. They can’t. They just don’t know. They have no insights in their budget, elections are coming up, there have just been elections, they are in the middle of elections, they have a crisis. You name it! Six nations...” (N5)

This dependency between NPD projects and politicians and governments may prove dangerous for such projects. Dutch government for instance, opted for the JSF in 2002 and invested almost 800 million dollars, but after a political shift in 2010, procurement of the fighter was put on hold. In case of the NH90 project, the process already has taken more than 25 years. Not only during so many years, even within the timeframe of a single politician’s period in office, opinions may change, according to a former Dutch state secretary:

“From a political perspective there are many things you have to take into account. Especially during these kind of projects. They take so long and then the priority of that certain politician may change.” (D2)

The examples and quotes above show that priorities from a political level may shift during a project. The longer a project continues and the more actors are involved, the more chance that political changes affect a project. And as they do, they also influence the requirements, ranging from the number of products to be procured, the price per product or the requirements of the product itself. Of course this does not necessarily need to be disadvantageous for a project. Political change can also change the project for the better, as Kennedy’s election proved to be for NASA.

Operational Changes

The fact that ‘the world has changed’, as the opening quote states, has a third effect on the NH90 project: the operational changes. During the set up of the project in the late 1980’s, the political and military environment was different from what it is today. The Warsaw Pact still existed, the Berlin Wall was still standing, and the enemy was well known. In this particular timeframe the NH90 was designed. More than 25 years later, this is not the environment the NH90 will operate in:

“In 15 years, the threat and the purpose of the forces has changed. 25 years ago we were fighting the Russians and the NH90 was conceived when we were fighting the Russians. Now we have a completely different task. We’re fighting terrorists, not armies. So we fly over enemy terrain. In the old Cold War we never flew into enemy terrain, we just supplied the troops at the borderline. So that’s completely different. [...] and now the armies want something different.” (N3)

“The helicopter was designed 20 years ago for blue water operations. Now we fly brown water operations. So we need completely different equipment in our helicopters.”²⁴ (D9)

Like political and technical changes, the probability of a change in operational requirements will increase by every extension in time.

Change of Requirements

As time passes by, the environment of a project alters. And the longer it takes, the greater the possibility the project encounters change, whether it is technological, political or operational change. When cooperating with several partners, aligning these differences becomes a difficult task. Every nation has its own political system, its own budgeting system and its own decision making systems. And often these processes are not synchronized. If there are changes to be made, they are often accompanied by financial adjustments. The section on political changes already showed the difficulties budgetary alterations bring along in a political context. And although passing time results in changing requirements, these changes also result in delays and as such in passing time:

²⁴ The first quote relates to the TTH variant, the second quote relates to the NFH variant.

“When building the helicopter takes too long, the clients are able to adapt their requirements. But this also requires adaptations to the budget and this on its turn takes time.” (B7)

The same respondent made clear that under pressure, time also has a direct influence on changing requirements:

“We think we have to decide now and our navy has told us to do so. Because they need the helicopter latest in 2015. And to have it at that time, you have to place the contract in 2010 latest. Therefore we have to decide now and if we have to decide now, I think we now need to have the alternative radar system as part of this helicopter.” (B7)

In this case, different requirements are accepted just to be able to have the helicopter in time.

In a cooperation with several nations and multiple companies, a change of requirements is not always welcomed enthusiastically by all partners. They cost extra money for industry to develop and if not all clients are willing to carry through these changes, the other nations are not willing to pay for alterations they do not want themselves. And even if a single client signs a national contract, this is unfavorable for the other nations. It will decrease economies of scale, since they have less helicopters to spread their costs over. It is up to NAHEMA to keep all nations on board, but as the earlier sections already showed, they do not succeed all the time. Consequently, changing requirements result in differences of interest and depending on the contracts the room to maneuver. It is therefore that ‘requirements change’ leads to the ‘area of influencing’, thereby connecting the right side of the framework with the left side of the framework.

Additional Influences on ‘Project Duration’

With reference to the left side of the framework, there are several factors that can be affected by time, in contrast to ‘right side factors’, and that have an effect on ‘project duration’ as well. First, the lack of mandate of both NAHEMA and NHI leaves both organizations no possibilities to act quickly and powerfully. They constantly have to negotiate and renegotiate with the organizations they represent to come to a decision. And even then, if these decisions result in an agreement between NAHEMA and NHI, the other partners have the opportunity to disagree and to start the process all over again. A second influence on ‘project duration’ is language proficiency, or a lack of proficiency to be more precise. Difficulties with language in an international environment like the NH90

project has a negative effect on the process. Less skilled employees often started discussions on topics that were already sealed and closed, because they did not understand what was said during meetings. Reopening discussions proved to be time consuming. A third influence on ‘project duration’ was the geographical dispersion of the partners. Although most meetings take place in France, being the most central location, meetings are time consuming due to the constant traveling. Video conferencing was not regarded as a favorable solution as the actors wanted to meet face to face. With the actors dispersed over Europe, including the community partners, meeting each other on a regular basis then proves to be costly, both in time and money. A fourth and final influence on project duration were the working groups. These groups were initiated to relieve NAHEMA and NHI and incorporate specialists from all partners into the project. However, some meetings lasted for days and with the preparation of these meetings, the meetings themselves, and the evaluation of the meetings, these processes could take weeks.

The Outcome – making full circle

Both sides have an effect on the core of the framework: the influencing arena. Before turning to what really happens in this arena, it is necessary to complete the circle. Whatever happens during the decision making processes in the area of interest, the outcome is always some sort of adaptation. Figure 26 displays these adaptations.

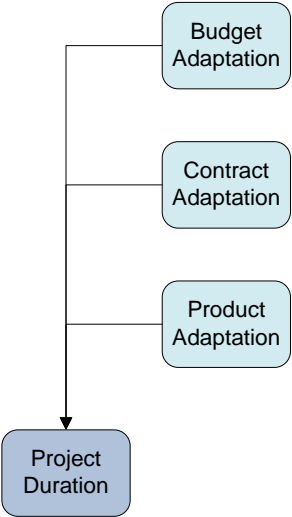


Figure 26: Adaptations

If the partners agree on changes on the requirements of the helicopter, these new requirements have to be designed, developed, built, tested and authorized. These processes are time consuming and are therefore connected to the time box. The adaptation of budgets has already been mentioned several times. New products or new systems in the product are costly. If these changes are carried through, governments need to adapt their budgets. Again, this takes some time. A final outcome of the decision making process is the adaptation of the contracts. An example was provided by a NAHEMA contract manager who explicated that the amendment of an existing contract of the NFH took six to nine months to establish. When taking into account that more amendments have to be made to other contracts and both contract managing departments are understaffed, one could imagine that these processes take some time.

5.2.4 Subconclusion

From this point of view, it can be noticed that a somewhat idealistic perception of project management on a political level was followed by a more realistic, or pragmatic, turbulence of doing business in real life. The political decision to connect costshare and workshare may be considered a reasonable one from a political point of view. It retains most of the investments in the own economy. Furthermore, more money was invested in a part of the European defense industry that was in dire need for a push forward. As a result, a cooperative effort was set up that in the end produced a state-of-the art helicopter. A helicopter that could not have been built by a single nation or industry. All these facts are undisputed by the respondents. But as mentioned, the workshare agreement initiated at a political level was followed by a day-to-day struggle for interests. This struggle led to more expenses:

One of the biggest problems is workshare. Every nation wants to have its own workshare. And that several times makes the product more expensive, because maybe there is a cheaper product available somewhere else. [...] France had 42% of the costs, so they had 42% of the workshare. Now, the workshare is shifting towards Germany and Italy, because now they buy more helicopters than France. But the workshare has to be adapted. And so the industry is forced to buy equipment that is more expensive, but belongs to Germany or Italy. So that's contradicting to the idea to save money. (B4)

Workshare not only made the project more expensive, but also less efficient:

“At this moment we are very busy with in-service structures and everybody has his national interests at stake and their maintenance facilities that they want to include. And then you start doing things double. Maintenance is done there and there and there. They all want to do it, instead of agreeing to split things up. [...]. And just when you think you have an agreement, it seems that a nation is approached by its industry saying they have a great offer, we take care of everything. And then you see it falling apart again.” (N4)

The goal of this thesis is not to judge the end results of the NH90 project. But these outcomes do shed a light on certain side effects, on what happens if different actors pursue their self interest in absence of an overall, shared goal.

Nevertheless, the goal of this section was to provide insights in what enables influencing and what constraints influencing processes.

Workshare agreements, made at a political level, proved to be set in stone. This means that switching to other partners would result in abandonment of the project. Furthermore, both the MoU and ICA stated the structures and processes the nations and industries had to commit to during the project. These factors constrained the actors in their influencing possibilities. On the other hand, contracts and memoranda were sometimes subject of debate due to their multi-interpretability, creating room to maneuver for the actors. Moreover, differences in goals and competition among partners, embedded in a New Product Development environment created an arena in which the partners were able to pursue their individual goals, and if possible goals of the overall project.

The different sections of the framework can now be combined to an overall framework, presented in figure 27.

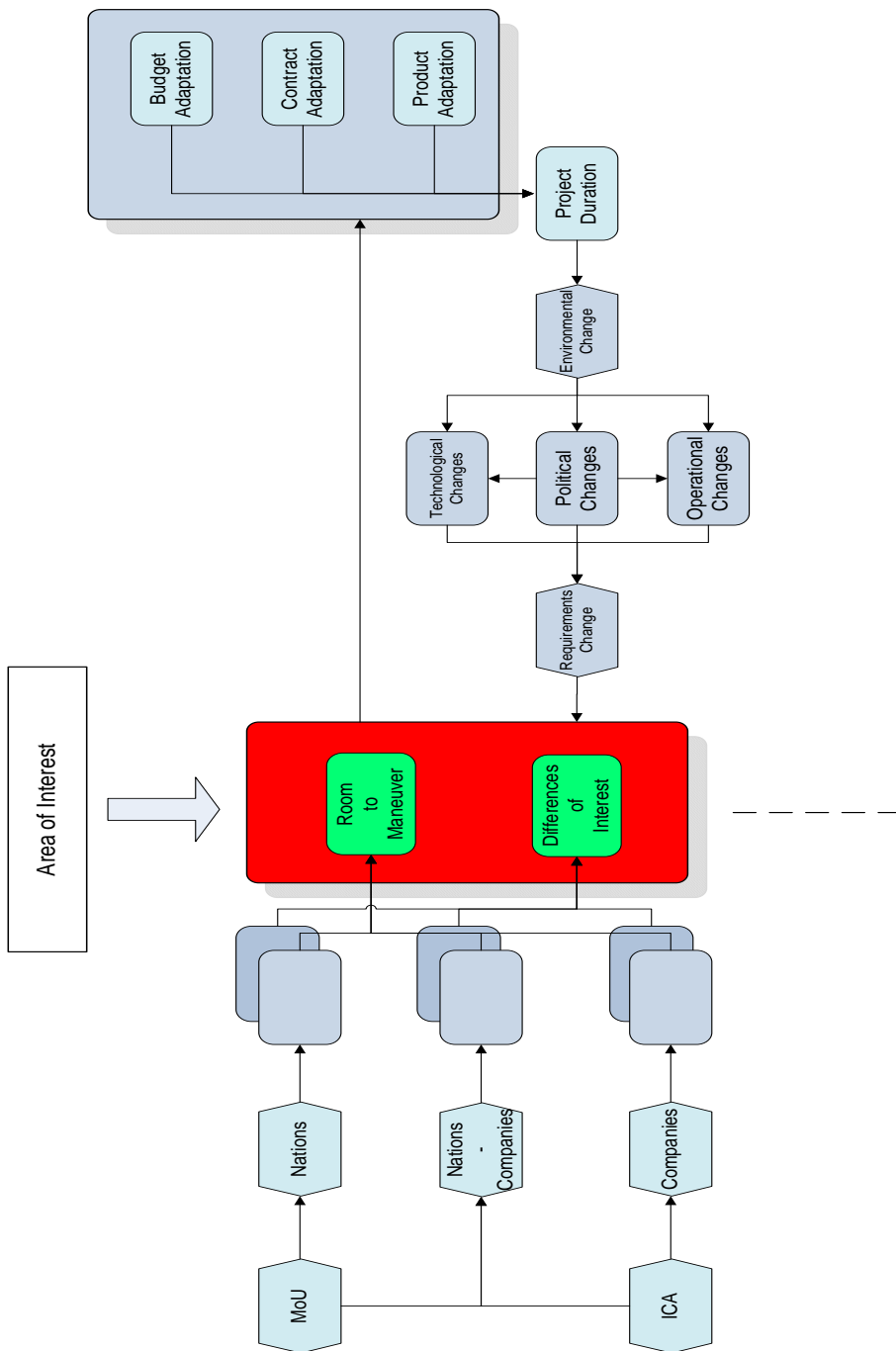


Figure 27: Context of Influencing - Extended Framework

5.3 Conclusion

The goal of this section was to provide insight in the context of influencing within the NH90 NPD project. The idiosyncratic characteristics presented in figure 24 show the elements that affected the influencing activities of the actors in this project. The findings indicated that the legal environment, the technological and operational embedding of the product, the politico-economical goals of the nations, competition between the companies, the buyer-supplier relationship, and the workshare agreements contributed to (and certainly did not diminish) differences of interest between the actors involved. The workshare agreement and a lack of mandates limited the room to maneuver for NAHEMA and NHI, whereas it extended the possibilities for the nations and companies. The multi-interpretable contracts on their turn enlarged the room to maneuver. The fact that one instance can enlarge the room to maneuver, whereas another can diminish it, indicates that there are different dimensions of 'room' in which the project partners act.

One dimension is limited by the number of partners explicated in the MoU. In an 'open' network organization, an unlimited number of actors can contribute to the size of the network. In this case, a limited number of only four companies took part. Whereas the number of private companies was clear, the number of clients was more obscure. The findings showed that the companies were trying hard to make money by focusing more on 'new' clients, thereby setting aside the founding nations. In contrast to the public agencies, the private companies were able to redirect their focus to other clients, thereby enlarging their room to maneuver.

The other dimension defines the rules of the game: what is allowed and what is not? If these rules are not clear, like the disagreements about the contract in the NH90 project, they enlarge room to maneuver, because new negotiations are needed to set new boundaries. Even if the rules are clear, but they do not offer enough authority to play, the actors have little room left. This is exemplified by the lack of mandate offered to NHI and NAHEMA.

In addition to the elements that can be influenced, the framework is completed with elements that fall outside the scope of manageable processes. The notion of time plays a significant role, especially as the project is ongoing for so many years as the NH90 project is. While the project endures, changes take place that have an immediate impact on the actors involved. These changes affect the interests these actors pursue and as such they affect the context of outward influencing processes. The pursuit of self-interests and the possibilities to maneuver within the boundaries of the contract finally results in the

adaptation of the product requirements, budgets or contracts. Processes that take time as well, thereby making full circle for this contextual framework.

CHAPTER SIX

CASE FINDINGS

6.1 Introduction

In this section, the study moves from the context to the cases. It describes the findings of the four cases separately, thereby focusing on the means-end frames, the actions and the differences between the organizational layers of these cases. Before turning to the first case, there are two considerations that concern all four cases and that need some explication beforehand. First, it is important to realize that most respondents do not have a clear understanding when ends are actually ends or when they are in fact means. A clear example is ‘coalition formation’. When asked what their main goal is or what their activities are aimed at, the respondents often reply that they are really focused on lobbying. However, when the respondent is asked why that is so important, they reply that it is important to build coalitions. ‘Lobbying’ now has transformed from a (proximate) goal to means, while in the meantime a new goal has emerged: ‘coalition formation’. When asked why they form coalitions, the respondents reply that with more partners you have a better position during negotiations. This made clear that also ‘coalition formation’ is not a goal in itself. Every time you can ask ‘why (do you do that)?’ and it is possible for the respondent to provide an answer why they pursue a certain goal, that goal transforms into a means. The findings in the next sections provide the ‘ultimate’ goals of the actors and represent the transformed goals as actions to achieve these goals.

Furthermore, it is important to distinct ‘means’ and ‘action’. The example about the transformation from goals to means, for instance, is (on purpose) wrongly described. Focusing on the words ‘means’ and ‘action’, it becomes clear that means describe something one can *possess*, while action refers to an *act* of somebody. Thus, means are nouns and action refers to verbs. In case of the example of coalition formation, there are relations, friendships, or personal networks people may have. Connecting these people to pursue a common goal is the actual act of coalition formation. These distinct differences are important to precisely describe the “means and ends underlying the specific actions of organizational members” (Bacharach et al., 1996).

The following sections all start with the question: what ends do the actors pursue? This is followed by the means and actions they use to obtain these ends. Differences between organizational layers on these topics conclude the sections. These differences are described in terms of ‘logics of influencing’. The process of indicating means-end frames

has been iterative. Describing them last, therefore, was a choice primarily based on clear presentation, rather than sequence of analysis.

6.2 The DMO: Small Partner, Soft Power

The Dutch Defense Materiel Organization is responsible for all materiel within the Dutch Defense organization: from procurement and major maintenance to divestment. The DMO is a service center and an executive body of the defense department. It is led by the National Armaments Director (NAD) and governed by the Secretary of State, who is politically responsible for all materiel projects. Within the DMO, a dedicated project organization for the procurement of the NH90 was established. Next, the means, actions, goals, and cooperation between the different actors of the DMO are projected, starting with the question: what ends are pursued?

6.2.1 *Context*

The context of the Dutch Materiel Organization can be indicated as a combination of users and political stakeholders. The so-called OPCO's (operational commands) will be using the helicopter after it is produced, delivered, and approved. During this process, the users are informing the DMO, during regular meetings, about operational and functional requirements. In that perspective, the OPCO's may be considered as DMO's clients. Political stakeholders are found within the Ministry of Defense, the Ministry of Economic Affairs, and the House of Representatives. Especially both ministries have an effect on DMO's operations within the NH90 project as they have large influence on for instance budgetary issues and workshare agreements. Due to the new product development context, in which proposals and decisions constantly have to be discussed, altered, and approved, the influence of all stakeholders adds to **development complexity**. This is closely related to **organizational complexity**. Because of the use of new technologies in the NH90, the involvement of different operational, technical, political, and financial specialists within the DMO, is inevitable. The effect of this trans-functional cooperation of actors with different perspectives increases organizational complexity. However, this study is not interested in the intra-organizational complexities of project partners. The aforementioned complexities nevertheless show that project related difficulties within the DMO narrow down the ability to freely maneuver during inter-organizational cooperation as each participant in this process enforces its constraints on DMO's external demands regarding the helicopter. In addition, development complexity also has an effect outside the organization. Development complexity involves questions as 'what suppliers to

choose?’ or issues about the management of supply chain relations. However, the use of Memorandum of Understandings prescribing workshare, partner selection, et cetera, also diminishes the opportunity to alter existing relations and thereby any room to maneuver. Adding to that, the decision to commonly facilitate an uprising of the European defense industry and to share development, production, and operational costs, increased the dependency between the founding nations. With reference to organizational context, the interdependency between the partners within the project thereby increased **inter-organizational complexities**.

6.2.2 Ends

The most important goal that was pursued by all DMO respondents, from high ranking officials to project staff members was “to replace the Lynx helicopter with a helicopter that matches the demands from the Netherlands Armed Forces for the best price possible” (D3). These specific requirements were dictated by the operational units (OPCO’s) and it was the NH90 helicopter that in the end best suited the overall requirements. Based on the primary goal of replacing the Lynx with the NH90, different sub goals could be distracted at different levels.

Political Ends

The political level that is referred to here, encompasses the minister of defense and the secretary of state of the ministry of defense. The first sub-goal at the political level can be labeled as **‘project governance’**. Although politicians at this level are aiming to “give the defense department what they want” (D2), it is important for them to stay cautious and to be aware of gold plating, because “servicemen always know how to come up with some requirements, that rules out anything that is for sale on the market” (D3). From a project point of view, the political level is overall responsible for the procurement of the helicopter and they try to avoid to be called to account by the house of representatives. They try to do so by overseeing the project and to stay informed, but besides that they leave the project management to the DMO as the executive body of their department. In words of a former secretary of state:

“With reference to these development projects, it is 90 percent about technology. And then we can say: ‘We don’t want fly-by-wire’, but who am I to say so? That should be done by people who know what they are talking about. Of course I want to know whether it’s on time and that it

won't crash, because I'm responsible for that and I'm the one who has to render account for the members of parliament." (D2)

"I can remember one time, the NAD told me what to say during that meeting. I had no idea what it was about. Well...that's how it goes." (D2)

His successor added to this:

"Well, of course there is the executive level, like General D., and there is the political level. And that's where I come into play." (D3)

On the one hand, the involvement of the political level was restricted to their approval of the project at the beginning, while later on their involvement increased at times when time schedules, requirements or budget agreements were not met. Otherwise, they would leave these issues to the DMO. What triggered their interest, on the other hand, was what can be labeled as **'reputation'**. Reputation in this case does not refer to personal standing, but to the international opinion about a nation, in this case the Netherlands. One of the issues in this matter concerned the international security domain.

"You may sense that I'm rather skeptical. That I don't know if it is sensible as a small player in the international security domain to always want to obtain a leading position." (D1)

Although the minister of defense was rather skeptical himself, he made clear that the Dutch political standpoint in this realm was to obtain a leading position. Cooperating in an international development program fitted this objective:

"I have always understood it [entering the NH90 project] was a political decision. To show that we also wanted to cooperate in a European project" (D2)

"That we entered the program was a political decision. If you would have left that decision to the Armed Forces, they would never have joined the NH90 project". (D2)

Especially the last quote indicates a difference of objective between the armed forces and the politicians. Whereas the armed forces (including executive bodies as the DMO) are

interested the most in getting the best gear for their soldiers, the political level was more interested in managing the reputation of the Netherlands as a nation.

An interesting finding was something that was *not* a primary goal of the political level: employment. Expecting employment to be of a nation's main interest and therefore best looked after at the political level, it was remarkable to find out that none of the respondents indicated it to be their top priority.

"We are here to look after the Dutch defense interests and not for employment in the Netherlands. That seems to me a pure intent from a constitutional point of view as well. [...]. If there is anything you can decide that is beneficial for the development of Dutch companies, you would do so, but you should not put aside large sums of money that are dedicated for security policy." (D1)

"In the Netherlands, we have the tendency towards a more strict separation between state and industry and just let competition on the world market do its job. In the end, it makes you stronger." (D1)

"There is overcapacity in Europe and it's artificially kept alive. Especially, because in the larger countries the political effect of employment is very large. But that's at the expense of efficiency. It could all be much more efficient and it could save billions for the participating countries in Europe. Of course, it will lead to reorganizations." (D3)

"With Stork...we have nothing to do with Stork. The Dutch Government. Absolutely nothing. They should be able to fend for themselves. [...] The Dutch government doesn't protect them." (D2)

It should be stated here that the political respondents were not unwilling to help Dutch industries. They all replied that if possible they would do all what was in their power to help them, but not at any cost. The perception about the partner nations was that contrary to the Dutch situation, these countries did support their home industries. In contrast to the Dutch situation, employment was indicated as a main goal of their counterparts in the participating nations.

To summarize the above, the political level tried to attain both **reflexive** (reputation) as **transitive goals** (the best military equipment for Dutch soldiers). In addition, there is no clear dominance within the set of time, money, and product constraints.

DMO Ends

The 'DMO-level' encompasses the hierarchical level just above the NH90 project leader up to the National Armaments Director, which is just one level beneath the secretary of state. Actors at this level also indicated their main goal "to replace the Lynx with a helicopter with specific requirements" (D8). An addition was made to this by a high ranking project officer who stated that they should try to "obtain the estimations that were made in the beginning of the project" (D7). In contrast, a General explicated that "it is very hard to find goals in open ended contracts" (D5). Nevertheless, the estimations the project officer spoke about are aimed at **product specifications, timelines and budgets**. These are the indicators DMO officials try to control. (These are the set of constraints as indicated by Simon (1964). Whereas the political level is only to some extent interested in product, time and money, they are the main goals at the DMO. However, even within the hierarchies of the DMO there is a difference in focus. The highest levels within the DMO were primarily focused on time and money.

"Let's leave it as it is. Incorporating these five little... things in the helicopter or not, shooting faster or flying further and all that...it all seemed fine to me. I had to look at project control in terms of time and money. That it all went well." (D4)

At this level, officials were concerned with financial control and the progress of the project. Although control in terms of time and money was internalized as their own objective, this should also prevent their secretary of state to render account for the house of representatives.

Descending to the levels just above the project group, managers were concerned with all three objectives of project controls: time, money, and product.

"It is my duty, foremost, to control the project in terms of time, money and product specifications". (D5)

With reference to the product, one official stated that his main goal was to "cling on to the goals that were initially demanded at the outset of the program". However, it was also acknowledged that that this perspective was hard to hold on to. Not only because the context of the program changed, as demonstrated in the context description, but also because of a factor that is related to 'time', i.e. progress. A two star general stated this as follows:

“You can stubbornly stay put, unwilling to sacrifice, but this could make the bubble burst. You can also loosen up a little, agree on certain items and obtain 80 or 90% instead of absolutely nothing. Of course we try to obtain 100%, but it could also work out wrong, stopping the progress and that’s not what you want either.”(D5)

In addition to product, time, and money, there is one other goal that is, perhaps surprisingly, found at this level: **workshare**. To find this item at this specific level may be considered remarkable, because it is not the intention of the DMO, as an executive body, to obtain as much workshare as possible for Dutch industry. Whereas the politicians indicated workshare to be important to the extent of mere spin-off, every single respondent at the DMO level indicated ‘workshare’, ‘spin-off’, or ‘economical impulse’ to be an important goal. The following quotes illustrate this:

“What we try, especially for the in-service support phase, is to position Dutch industry as good as possible” (D7)

“It’s in our interest to get our industry involved in this program.” (D6)

“We just want to see our tax money spent in the Netherlands. This phenomena made that we did the best we could to return these cash flows back to the Netherlands. It’s just helping Dutch economy.” (D5)

“It always played a role, that what you did was beneficial for our workshare, for Dutch industry.” (D4)

“We always demand compensation. So we have to take care that we get back some part of the investments abroad. That’s of national interest.” (D8)

The intent of DMO officials to actively pursue Dutch industrial involvement is not driven by an official policy, is not ordered from a political level, and does not per se enhance the product in terms of requirements, budget or timeframe. The reason for these different intentions between the political level and the DMO level can be found in the fact that political involvement is most noticeable before and at the start of the program, when decisions about workshare are made, while DMO involvement is most active during the program when the agreements only need to be ‘carried out’. As former quotes already revealed, secretaries of state and Ministers of Defense are, also from a constitutional point of view, mostly determined to look after the Dutch defense interests in favor of any

actions that could benefit employment in the Netherlands. After this start-up phase and the actual project is on its way, there is close cooperation between the DMO and the companies, especially Dutch based Fokker. These contacts lead to a 'psychological effect' as a former secretary of state explained:

"Of course there is also a psychological effect. It is completely different if you meet each other every day in Aix-en-Provence or Marseille or wherever, with a wrench in your back pocket by figure of speech, discussing and working on that helicopter, then when you are talking at a completely other level. A political level." (D2)

Perhaps this effect, based upon close cooperation, may explain the difference in the workshare approach between both levels.

Goals at the DMO level are purely **transitive in nature**. First, they aim for a condition in which Dutch soldiers have the best military equipment, for the best price, on time. Second, they are concerned with the condition of employment in the Netherlands (this relates to the organizational environment of the DMO, not the DMO itself). Furthermore, there is a sharp focus on time and money within the set of product, money, and time (PMT) constraints.

Operational Ends

Descending once more, the last identified level comes in sight: the operational level. This level is indicated as the dedicated NH90 project leader and his group of staff members. The focus of this particular group is, like at DMO level, aimed at budget, time, and most of all product requirements. Project members are well aware that they have to stay within the boundaries of the projects' timeframe and budgets. And although all activities of the project members are dedicated to control cash flows and to prevent delays, their ability to extend the timeline or to expand budgets was limited. Respondents therefore indicated 'product requirements' as their main area of interest.

"If the operational units say: 'this is unacceptable for us', for instance if something is technological outdated, then it's not up to me to say: 'well, that's what you've ordered 10 years ago, so that's that'. Then I have to find out how to get it right." (D9)

"[...] and of course we don't want to give in on operational restrictions" (D9)

The operational level seemed to be less affected by external issues as workshare, (political) relations, or reputation. Dedicated to procure the NH90 helicopter, with fixed prices and with a clear timeline, **project management** was and is of the utmost importance at this specific level. Where time and money slightly imbalanced the management scale at the top DMO level, an orientation towards **technical issues** tips the balance at the project level. At the operational level, the collective intent is directed towards transitive goals, with a clear emphasis on product specifications within the set of (PMT) constraints.

6.2.3 Means and Action

The introduction of this chapter already revealed the intertwined relation between means (What do you have?) and action (What do you do?). It is for that reason that both aspects are discussed jointly in this section.

Means and action at the political level

One of the most important means politicians possess was indicated as their 'client position'. This rather intangible concept has already been discussed in the context chapter where the relation between buyer and supplier included typical differences of interest. In the context of influencing actions, politicians used their client position to **threaten** with stopping payments or to revoke orders.

" They [partner companies] really needed to improve their efficiency. [...] At that moment we threatened to secure certain means ...well, money...they needed for further development. So we threatened with money a little." (D3)

"The best way to put some pressure on them is of course revoking orders for Dutch companies." (D1)

"I visited the French ambassador several times during my ministry to tell him that we would stop. Terrible program.[...] Of course, we didn't do it. We were in way too deep²⁵." (D2)

²⁵ Although there is no client relation with the French Government, due to its close relation with French companies, this specific respondent expects the threat to have the same effect.

The last quote shows a weakness of threatening: an actor should be able to execute its threats in order to have an impact. In the last case, threatening was only used to indicate frustration from the Dutch actors. The quote also showed that stepping out was difficult to do, because the Netherlands “were bound hand and foot” (D3). In addition, the Dutch needed to replace the Lynx, which implied that “you don’t have the freedom to say: ‘we quit!’”(D3). Furthermore, there is also a financial reason that threatening could backfire on you:

“It’s easy to shout: ‘We are not going to pay that bill!’ But the problem then is that EADS or FinMeccanica will have a problem with their working capital, a cash flow problem. And if you know just a little about corporate finance, you also know that this is accompanied with extra costs. And as we are dependent on them for our new helicopters, it is not a good idea to let those companies go bankrupt. Because then we have another problem. Look, in the end it’s all about us getting new helicopters. And you can stubbornly say: ‘I won’t pay’, but that will just make the helicopter more expensive.” (D11)

These considerations could question the effectiveness of influencing by means of threatening. Even the respondents concluded this. Nevertheless, threatening based upon their client position was indicated as an activity used to influence counterparts.

A second means used to affect others were ‘**relations**’. These relations ranged from close, personal friendships to superficial business relations, but they all contributed to two very important activities: **lobbying** and **coalition formation**. During negotiations with industry it seemed very important to have as many nations on your side as possible. This was especially true for smaller participants like the Netherlands:

“The Germans knew I was going to Aix-en-Provence and they also knew what was on the agenda. And when we spoke to each other, he told me that he had the same problems as I had. ‘You may articulate your dismay also on behalf of me.’ Now I could say, ‘We, Germany and the Netherlands,...’. That made a difference. We had ordered 20 helicopters, they 100. Now I spoke on behalf of an order of 120 helicopters! (D3)

This quote shows that it evidently helps to have connections. Especially as these relations pursue the same goals. For the sake of clarity, a distinction needs to be made between lobbying and coalition formation. First of all, lobbying is a process that proceeds the

coalition formation process. If an actor needs coalition partners, they first need to talk to people to explain their problems and to persuade them to join their case. This process is almost always an informal activity. Coalition formation, then, is the formal outcome of this process. This formal/informal distinction is a second characteristic that separates lobbying from coalition formation.

The third and last activity can be labeled as '**making concessions**'. The 'thing' one needs to 'act' in this case is the will to accept less performance, delayed delivery or a more expensive product. It is an activity that contradicts the earlier mentioned goal to 'get a helicopter with definite requirements' or with the quote that stated 'we don't give in on operational restrictions'. However, as political efforts were also directed towards 'money' and 'time', it fits the goal to reduce costs and to make progress. Making concessions is one of the considerations politicians make before entering a project:

"Shouldn't it be wise to change our specifications, our demands, just a little bit so we will be able to buy 'off the shelf'? That's probably cheaper." (D1)

Not only before, but also during the project, giving in on initial specifications contributes to achieving 'higher' (ultimate) goals. This includes making progress:

"Sometimes they can't deliver. For whatever reason. But you can't play hard ball and say: 'I'll just take my losses and I'll leave'. We can't permit ourselves that luxury, because the Lynx already needed to be replaced some years ago. We need to make progress instead of delaying the game." (D3)

With reference to the theoretical underpinnings of this study, it can be concluded that the political level uses **socio-economic resources** (financial resources) by threatening partners (**pressure**) to stop payments. It furthermore uses relations (social capital as part of '**soft power resources**') to form **coalitions** and is willing to compromise on product requirement (consultation) in favor of budget and progress (financial resources within the set of **socio-economic resources**). At DMO level there is a partial overlap of used means and actions.

Means and Action at DMO's managerial level

A similar activity that is used at both the political as the managerial level, is '**making concessions**'. Although making concessions is not considered a preferred way of doing business, it turned out to be an often used activity.

"During the development phase it is inevitable that some things don't work out as expected. You then negotiate with the other three or four nations and you will reach a certain consensus. You will have to moderate your demands. That's basically how it works." (D8)

Although making progress was indicated as one of the most important ends pursued at the managerial level, respondents indicated that it is very difficult to 'manage' time. Their emphasis was therefore directed towards parameters 'money' and 'product':

" 'Time' is difficult to influence. To accelerate is almost impossible. You can influence money and functionality. You can, for instance, install a less performing engine. A cheaper engine. That way, you need less money. Or if it doesn't meet the required demands, you put in some extra money, so you'll get the engine that performs exactly as required." (D6)

A second activity that is similar to that at the political level is **coalition formation**. For the same reasons as the politicians, officials at the DMO acknowledged the effectiveness of this method: counterparts are more impressed with larger numbers:

"In the end, you will lose with only having five percent of the shares. That's why you have to form coalitions. You have to win the other partners over for your case. [...] and in that perspective, smaller countries find each other relatively fast. (D7)

"If you think you can get some support from let's say Germany, you call your German colleague and say: 'This is my problem, I would really like you to back me up on this'. (D4)

In contrast to similar activities like coalition formation and making concessions, there are several other activities at DMO's managerial level, that were not observed at the political level. The first one, **escalation**, has an obvious reason why this is the case: at the political

level, there is no level to escalate to. Escalation in this study relates to processes in which issues at lower levels remain unresolved and are therefore 'escalated' to a higher, hierarchical level to be solved. To escalate, as an 'act', the organizational structure is used as a means. The escalation process was compared with a card game by one respondent:

"You have to make sure you play the right cards at the right time. When do you use politicians? When do you use the NAD? When do you use the project leader? You have several aces at your disposal." (D4)

The remark about the timing of escalating issues is an important one. The goal of escalating was often to accomplish breakthroughs when partners were blocking their positions. Higher levels were able to put things in motion again:

"When the project leaders noticed that NAHEMA and NHI were holding their grounds, they collectively persuaded their NAD's to talk with NHI. And talking with NHI means talking to the CEO's of the partner companies. Only the NAD's are able to get through to the CEO's. And they are the ones that can start moving things again." (D5)

Respondents at this level indicated that they used to escalate their issues up to the secretary of state when they were unable to resolve their problems at their respective levels. However, they also indicated that most escalation processes were initiated by the project leader. The last quote is an example of this process. These remarks indicate that escalating issues is an activity that is executed at both managerial and operational levels, but that often starts at the project level. According to four respondents, this is due to the fact that at the project level, most issues are discussed, more (regular) meetings are attended, and actors have less mandate to decide.

A second distinction between the political level and the managerial level at the DMO is not centered around action, but is focused on means: **contracts**. Whereas at the political level contracts were not mentioned at all, they were mentioned frequently at the DMO level. Although indicated as a frequent used means, respondents had different perceptions of the effectiveness of contracts as a means:

"Look, the most important thing is that it is contractually binding. The participation of Dutch industry in this project, I mean. That's where we find the strength to enforce these kind of things." (D6)

The same respondent also concluded that during disagreements, actors tried to pursue their goals by referring to these contract. However, he also acknowledged the fact that the same contracts could be perceived as rather flexible:

“A contract is just a contract.[...] You can try to settle everything, but during these kind of projects there are moments in time that you can say: ‘contract is contract’. But in the end, if something is not realized, it just isn’t there. Then you have to come up with other solutions.” (D6)

These quotes point out that contracts were used as some sort of starting points. If partners were unable to solve problems with contracted agreements, these contracts were then adapted. A distinct specification within these contracts was also mentioned several times: penalty clauses. Penalty clauses are terms within a contract that specify payments in the event that the contract has been breached (Rubin, 1981). Again, the perceived effect of penalty clauses differs between respondents at this level.

“Well, those penalty clauses are already taken into account. They have incorporated those penalties in the price. You’ll probably never going to figure out how penalties and prices relate to each other.[...] And they sometimes rather pay the penalties than that they have to do things all over again.” (D7)

“No! Those penalties are not incorporated in the final price setting. No, it’s a fixed price.” (D5)

These responses show that if an actor wants to influence its partner by referring to penalty clauses, it makes a difference what position he takes towards penalty clauses. An actor who thinks penalties are enclosed in the price, is probably less impressed by a supplier who is ‘willing’ to pay the fines. Depending on his personal stance towards penalties, this would also imply that he himself will consider contracts, and penalty clauses in particular, more or less appealing to use as a means. In general, a majority of the respondents at this level seem to use contracts as a framework to start negotiations. From here on they are able to adapt the contracts to a certain extent, thereby breaching impasses. Contracts are not used as solid agreements, but more as guidance during the many changes these NPD projects have to endure. A clear statement on this topic was made earlier: ‘a contract is just a contract’.

An action that relates to ‘progress’ as an end is ‘**delaying**’. Hindering progress was indicated as an effective action to influence decision making processes because “delays

are something nobody wants” (D7). Especially when deadlines are approaching, or even more so, when the project is behind schedule, delaying is perceived as very effective. Delaying can be executed in several ways, but officials at the managerial level used their formal right to reject offered solutions. This formal right is based on the unanimity rule among the partners, thereby resembling veto rights. Formally, rejecting solutions is an option available to all partners. Informally, it is also a matter of volume:

“Formally, we are able to disagree on some topics of course. But for how long...That doesn’t mean that we don’t have any power, we can turn down a solution. Then formally, the Steering Committee cannot take a decision and the issue lies at the NAD level. Then they have to find a solution. But in the end you will lose with having only five percent. If you are the only one against, at a given moment in time, you will have to adapt.” (D6)

Furthermore, not only the other nations or the partner companies suffer from these delays:

Those MoU’s probably state that everything has to be ‘unanimous’. But if the other three nations say ‘yes’, and you play your veto card...well, that wouldn’t probably push the project any further, would it? (D4)

If the DMO wants to influence the project by delaying the process, it needs to have the time to ‘play that card’. Like threatening with other means, an actor needs to be able, and willing, to execute its threat in order to be taken seriously. As the NH90 project was behind schedule relatively early in the process, the founding nations, including the DMO, were reluctant to affect the project by delaying its progress.

A very interesting ‘act’ executed by the DMO is installing ‘boundary spanners’ at NAHEMA. At own cost (in contrast to NAHEMA employees who were paid by NATO), DMO installed two employees at NAHEMA in Aix-en-Provence. This had two advantages: first, they had more eyes and ears at NAHEMA, by whom they were constantly informed. A former NAD replied during an interview: “If you want to play a role during international meetings, be informed.” (D4) Adding extra employees certainly helps in that perspective. Second, because the Netherlands only had a five percent stake in the project, they were not entitled to a division leader position. Because of this set up, however, the Dutch were allowed to direct the administration division at NAHEMA. With extra personnel, including one with an important position at NAHEMA, the DMO was very well informed about what was going on between the nations and between NAHEMA and NHI. This enabled them to

act more adequately during meetings. In conclusion, by means of these boundary spanners the DMO obtained a secondary²⁶, but nonetheless very important goal: be informed. This secondary goal turns into a means by stating the question: Why do they want to be informed? The information is eventually used to influence others by means of facts and ratio. An activity that can be indicated as a **rational persuasion**.

A final means to influence the NH90 project was based on a structural agreement between the nations: rotating **chairmanship**. Based on formal agreements, each nation chairs the Steering Committee for a year and then it rotates to another nation. During this period, the chairman is able to focus on issues he or she thinks is most important:

"Just before I became chairman, we noticed that the planning we received from the industrial partners became very unreliable. When I became chairman, I contacted all the partner companies. To introduce myself of course, but also to make clear that during my presidency, creating reliable planning tools would be at the center of attention."
(D6)

This 'means' can be effective, but only lasts as long as the formal chairmanship lasts. In addition to its formal component, it also has an informal component that will be revealed in the following section.

To summarize the above, actions used at the DMO level were 'coalition', 'pressure' (delaying, rejecting solutions), legitimating (referring to contracts), consultation (hierarchical escalation and making concessions) and rational persuasion (by means of boundary spanners). Means used include 'institutional resources' (contracts, authority by chairmanship, hierarchical position in case of escalation) and 'soft power resources' (knowledge and expertise).

Means and Action at the Operational Level

The managerial level alike, members at the operational level had different opinions about the way **contracts** could influence the project partners:

"If development is more expensive for industry than paying the fine, they will pay the fine. Also, contracts enclose maximum fines and you

²⁶ Or 'proximate goal' to stay with Deniston et al.'s terminology.

bet that those maximum fines are included in the offer. So, in fact we already paid their fines!” (D9)

“Yes, we do have some pressure means. We use penalty clauses for that.” (D11)

Whether these respondents are right or not, the companies can make more money by not paying fines, one way or the other. What matters in this context is to what extent the respondents believe these means may affect their counterparts. By expressing that fines are already incorporated in the price, they have less confidence in using contracts as a means to influence their partners. With reference to the use of contracts at the managerial level, contracts are less adaptable at the project level. As a project leader stated:

“The contract is my playing field. I can indicate opportunities outside the contract, but I’m not in the position to fill them in myself.” (D9)

This quote indicated a goal shared by all respondents at this level: a strict execution of the contract. However, members at the project level also acknowledged that in some cases, problems were unable to be solved within the framework of the contract. To overcome these problems they relied on something that is also used at DMO’s managerial level: **escalation**.

“There are other forces that can help. [...] When you’re bound to the contract and you strictly follow its boundaries, you get stuck. But, let’s say, politicians, can go much further. They can relate these problems to other projects. NAD’s are also capable of doing that.” (D9)

Escalation was seen by project members as an effective act to overcome issues that they were unable to solve at their own level. Respondents at both the managerial and political level all indicated that it was the responsibility of the project leader to initiate escalating processes. Escalating in itself is not influencing other partners. Higher officials that then come into play do. In that perspective, project leaders consequently have more ‘aces’ at their disposal than officials at the managerial level. Changing the organizational hierarchy then also affects the influencing process:

“We recently changed our organization. It’s much flatter now. [...] If you escalate now, you go almost directly from the NAD to the Chief of Staff

and then to the Secretary of State. That's of course an escalation ladder nobody wants to climb." (D9)

As the formal JEC meetings, Steering Committee meetings, and the NAD meetings are restricted to respectively the project leader, one DMO general and the NAD, these changes mostly affect the informal influencing processes. The formal processes are limited to the aforementioned officials.

Respondents at the operational level indicated several **cognitive capabilities** as being the most important means they had at their disposal. Sound argumentation, technical and operational knowledge and their English language proficiency were thought of as assets that gave them a reputation of skilled partners.

"Sometimes we play a mediating role, sometimes an accelerating role. You often see in meetings, that the Dutch are asked first to express their opinion. They allow us to do so, because they are convinced about our knowledge and skills. We always come up with good arguments." (D9)

These self perceived capabilities affected the informal component of chairmanship that was mentioned in the previous chapter:

"Due to the fact that we could speak better English than the French and Italians, we were often asked to chair the working group meetings. Of course we followed the agenda, but we could emphasize certain issues that were more important to us." (D11)

Cognitive capabilities gave them an informal way to influence the project. Respondents at this level also stated that because of being a small player, being an active player is very important. Pro-activity, together with knowledge, experience, and language proficiency made the project members respected project partners²⁷.

At the operational level, the tactics used are 'consultation' (hierarchical escalation), rational persuasion, and 'legitimizing' (referring to contracts). Means used are

²⁷ Several project partners supported this perception of the DMO project members. Interviews made clear that although these cognitive capabilities are most used during project meetings and as such most observed at project level, these capabilities were depicted as being representative for most Dutch actors.

institutional resources (contracts) and ‘soft power resources’ (expertise, reputation, experience).

6.2.4 Case Summary

Table 9 lists the findings of the DMO case per level. It clearly shows that not all levels pursue the same ends and that slight differences exist in the tactics these levels use to influence their counterparts

| DMO | Means | Tactics | Ends | Emphasis in Set of Constraints |
|-------------|---|---|--|--|
| Political | <ul style="list-style-type: none">Socio-EconomicSoft Power | <ul style="list-style-type: none">CoalitionConsultation (consensus)Pressure | <ul style="list-style-type: none">Reflexive (initial)Transitive | <ul style="list-style-type: none">No emphasis |
| Managerial | <ul style="list-style-type: none">InstitutionalSoft Power | <ul style="list-style-type: none">CoalitionConsultation (escalation)LegitimizingPressureRational persuasion | <ul style="list-style-type: none">Transitive | <ul style="list-style-type: none">MoneyTime |
| Operational | <ul style="list-style-type: none">InstitutionalSoft Power | <ul style="list-style-type: none">ConsultationLegitimizingRational persuasion | <ul style="list-style-type: none">Transitive | <ul style="list-style-type: none">Product |

Table 9: Findings Overview DMO Case

Relating the tactics to strategies, it can be stated that actors throughout this case applied rational strategies and hard strategies. Facts, logic, and rational considerations contribute to the first strategy, whereas pressure, legitimating, coalition formation, and escalation dominate influencing activities based on a hard strategy.

In short, the DMO is a relatively small actor within the NH90 program. Most noticeable differences between the levels are the 'political' logic of influencing at the political level and the 'project' logic of influencing at the executive levels. The political logic is oriented towards an initially reflexive goal of reputation management and the use of socio-economic resources. Although socio-economic resources are indicated as power resources, the respondents considered the actual effect as rather low. Lower level officials are more project oriented, with transitive goals directed towards efficient project management. Due to the lack of socio-economic resources, the emphasis is foremost on soft power resources. There is an ambivalent stance towards the use of contracts as institutional resource: 'contract is contract' versus 'contracts are made, so they can be altered'.

6.3 The BWB: The Industrial Escape

The main task of the Federal Office of Defense Technology and Procurement (or Bundesamt für Wehrtechnik und Beschaffung, BWB) is “to ensure that the Bundeswehr demand is met by supplying state-of-the-art technology and modern equipment at economic conditions” (BWB, 2008). The BWB is therefore responsible for research, development, procurement, and maintenance activities. This also includes the implementation of new materiel and the disposal of abandoned goods. For this study, the political level, directing the BWB and that also has an influence on the NH90 project, is included. Like the DMO, this political level has distinct other objectives and based on other logics of influencing, it is considered as a separate hierarchical level. The ends of this level are described first.

6.3.1 *Context*

The context of the BWB does not differ largely from that of the DMO. In this case, political stakeholders from the ministries of defense and economic affairs are involved in the project, as are the operational units that will use the NH90 after delivery. From that perspective, the BWB suffers the same conditions with respect to **development** and **organizational complexity**. Although inter-organizational complexity is also similar to that of the DMO, there is one important difference: the public-private relationship in Germany. Where the Dutch have a rather strict separation between state and industry, both German actors are closer related. With reference to influencing processes, this means that German transitive goals are indeed directed outwards, but they are more subjective towards their own industry instead of being directed towards solutions that may benefit their partners, the other three founding nations.

6.3.2 Ends

The overarching goal of the respondents was to supply the Bundeswehr with the best equipment as possible. With reference to the NH90 project, the goal was to replace the Sea Lynx and Sea King helicopters with a helicopter that best suited the demands of the German Bundeswehr. This overarching goal permeated all organizational layers. Although this goal is similar to that of the DMO case, the other goals were not. Differences in goals are described in the following sections.

Ends at the political Level

The DMO case revealed 'reputation' as being an important issue at the political level in the Netherlands. This same notion, however, has not been mentioned once during interviews with BWB respondents. On the other hand, **competition** and **employability** were indicated as important issues at this level, while they were not dominant during interviews with Dutch politicians. Both goals are mentioned together, because they are strongly related. First of all, competition was regarded as important in order to withstand United States' dominance in the field of military production and procurement. Boldly stated by a member of parliament:

"We want to be able to compete with the American industry." (B2)

Actors at the political level thought it was important to be less dependent on American industry and they wanted to produce military equipment on their own soil, or at least in a European cooperative effort. Second, competing on the international market would be interesting for German employment. However, like the Dutch politicians, German politicians were not willing to support their nation's industry at any cost. In fact, a former secretary of state was against buying home build products in favor of economical efficiency. Using a French example, he stated:

"There were many disputes, but the French let their nation's economy prevail. They say: 'we need to use French engines'... which I think is wrong." (B1)

At first sight, German and Dutch political perception on supporting employability seems comparable. There is, however, a difference that is related to the size of the German defense related industry. Competition was only supported in those areas in which the Germans thought there was enough perspective to compete internationally. Examples are found in the ship and tank building industry and in the avionics and communication

sector. These areas hold the interest of German politicians as these industries represent a substantial part of German employment. The impact of laying off employees in these industries is from a different scale as it would be in the Netherlands. This process of competition and protecting industry was explained by a former secretary of state as follows:

“Now as far as the cooperation with industry is concerned, I am always advocating for competition and competition is at the heart of the game. [...] Competition has always been the policy of the German ministry. But the amount of players has been reduced. [...] So, the shrinking of the industry, the shrinking of the requirements, the result of the peace dividend, led to a shrinking of the industry and we need the state to decide what we would like to retain and where do we want to minimize or delete this capability. Then industry had to concentrate and we need...I wouldn't say to guarantee but to foresee a certain amount of money that they could get orders and deliver their equipment.” (B1)

In conclusion, the ends of the political level in Germany are getting the best products for their soldiers as possible, being independent of American industry and employability. These goals are all **transitive** in nature.

Ends at the BWB's Managerial Level

The goals of actors at the higher echelons of the BWB are similar to those of the DMO. They are mainly focused at controlling budgets, timelines, and product qualifications. Simply stated by a BWB controller:

“We are responsible that the helicopter will have the performance that we have asked for.” (B7)

At this level, it was very important that the requirements of the helicopter not only matched the requirements of the German Army, Navy, and Air Force, but also matched their allies' requirements. The first reason for this had a budgetary background:

In Europe, nations cooperate to save money. That is one point, to be more economical. And cooperation works quite well in development and production. It works in most case very good if the requirements of the various nations who cooperate are very similar. If they

deviate too much, cooperation will fail. But in the NH90 program, cooperation is quite reasonable, because many requirements are similar, but not all.” (B3)

The second reason was oriented towards standardization. Problems with standardization relates to the fact that nations have to decide whether they want to link their systems to their national weapon systems or to the systems of other nations. According to the BWB aircraft division director, standardization within the NH90 project had some mixed choices. When asked if one could conclude that standardization between the nations was not the primary goal of the cooperation, the director replied as follows:

“It is a change of philosophy. Until fifteen or twenty years ago, nations wanted to standardize their whole inventory. All German helicopters the same communication equipment. All German fixed wing aircraft the same communication equipment. However, it has become so costly in the mean time to integrate equipment into modern weapon systems due to the interlinked avionic systems, the standards in the communication between the partners... For instance, in the NH90 program, the Eurofighter program, the A400M program, it is more important than the standardization between different weapon systems in the nation. So, this is also standardization. So you can do it either in the way of national standardization, which is evidently in some cases the case here. Or you do it in the international field for this dedicated weapon system.” (B3)

This quote strongly depicts the difficult choice actors have to make between national and international interests. It also shows that standardization between the nations was not simply ‘a done deal’. This also means that economies of scale were not accomplished to the full extent. The overall view on standardization, however, was quite optimistic:

“Important in my view is to have the same basic helicopter. The same engine, the same structure. Same basic avionics and flight control equipment. So let me say 95% of the helicopter is identical.” (B3)

In addition to the focus on product characteristics, money and time are the other two dimensions of project management at the BWB. According to the division director, the project leader had to go directly to the MoD level if he needed more money. At the BWB

level, the division leader was not able to increase the project budgets. He could only support his project leader with unofficial lobby activities, addressing higher ranking officials to obtain a more lenient position towards the project. Money was also strongly related to the time characteristic. With a limited project budget, elongating the project resulted in difficult situations:

If we don't have a decision in 2010, they have no requirements for a new helicopter. That means that you spend your money on the Sea King, which is already in use in Germany. They have to extend its lifetime up to 2025. And if you start paying for that old helicopter, you will lose money to buy a new one. That is the situation that we have to solve." (B7)

In comparison to the DMO level, there are little differences with regard to the project directives. Time, money, and product specifications are at the center of attention at this level in both organizations. There is however considerably more attention towards the issue of standardization within the BWB during the interviews than there was at the DMO. Another difference relates to the notion of workshare and employment. Whereas employment and safeguarding the total amount of workshare was highly important at the DMO, this topic has only been mentioned once during the interviews at this level²⁸. This topic was considered an issue for the political level. Nevertheless, the goals at the BWB level are also **transitive** in nature. There is no emphasis on one of the constraints in the PMT set.

Ends at the Operational Level

The program leader and his staff can be indicated as the 'operational level' at the BWB. This team of fourteen employees resides in Koblenz and is, similar to the DMO project team, primarily occupied with dedicated NH90 **project management**. The overarching goal of providing the armed forces with a new helicopter is the main objective of the NH90 program office.

"We have to provide a very good product for the users. That is the main goal!" (B5)

²⁸ This may have to do with the quantity of interviews at this level (2). However, the length of the interviews were considerably longer than average.

To do so, the officials at this level are predetermined to stay within the boundaries that higher level officials had set for them by. This is the case for all three project indicators. Referring to the budgetary goals, the project members have strict rules to “stay within the budget” (B9) and to “make sure that we are not overcharged” (B5). With reference to ‘time’, the project members were well aware of the delays and tried to proceed as fast as possible. Making progress was an important issue, but the organizational structure of the overall project made this a very hard task to accomplish:

“For every sub group we have meetings in every quarter. I have to attend four or five sub working groups. That means I have a meeting every two or three weeks in Aix-en-Provence. In addition of the other meetings I have with the normal working groups like core avionics and so on. It’s a lot of travelling and that is a problem here. Every working group needs some time to prepare, a day of travelling, one or two days for the meetings, and a day for travelling back. And that results in a lot of congestion for your regular work.” (B9)

The time consuming, practical implications of travelling nevertheless do not diminish the importance of proceeding as fast as possible. With reference to the product requirements, there was an important issue that was mentioned several times during the interviews at this level: the contract lacks specific requirements. This meant that project members were often ‘filling the gap’, as one of them called it. Because the contract was not very precise, it needed many negotiations with industry to come to an agreement. Although project members had strict guidelines when it came to budgetary issues, differentiations can be made when it comes to the different sort of contracts.

“In the basic contract we don’t speak about money. ‘If you give me this, I will skip that’. It’s about compromises. However, in case of a CCO (Customer Change Order) or an ECP (Engineering Change Proposal) we do talk about money.” (B9)

Talking about money, however, was done by specialized price negotiation teams, not by the project member himself. This made the main focus of the project team similar to that of the DMO project team: technical specifications. Again, the collective intent at this level aimed for transitive goals. Within the set of PMT constraints, the emphasis was directed towards product requirements.

6.3.3 Means and action

Similar to the DMO findings, the BWB means and actions will be presented jointly in this section. This section will also provide an overview of the means and ends per hierarchical level.

Means and action at the political level

An item that returned several times during interviews at the BWB, at all levels, was **'be informed'**. Perhaps referring to a Dutch former state secretary who stated that he sometimes had no clue what he was talking about (although strictly briefed by specialists), his German colleague wanted to know every detail of the subject at hand:

"You have to be informed. This is sometimes necessary because some politicians do not really know what they do when they say something about a weapon system." (B1)

In this specific case it is worth mentioning that this secretary of state in his earlier career served as an high ranking general in the armed forces. This personal background perhaps enabled him to better understand the complexities of weapon systems. The same interviewee indicated the **buyer-supplier relation** as an important means when it came to influencing:

"When we decided to buy the new European Fighter Aircraft, the Chairman of MBP, a predecessor of EADS, tried to explain to my minister what the specifications of the fighter aircraft should be. My minister ended the discussion after 30 minutes and said: 'I don't talk to you anymore. Because you are going to tell me, what I have to buy. I thought I am going to tell you what you have to develop in order that we buy it. Thank you. You are not the right man for me.' So, this was kurz, knapp und verletzend. After half a year there was a new chairman and then it went better." (B1)

This client position was also indicated as a means at the Dutch political level. In addition, there is a similar attitude towards the political end of project governance. Focusing on time, budget, and product, the political level tries to direct these factors by providing 'political guidance':

“Well, first of all the lower level, they have sometimes technical problems and sometimes they get a political guidance. And the political guidance is you need not to spend more than this and that or we have a different timetable or we have to change the requirements.” (B1)

Where Dutch politicians spoke about ‘making concessions’, this former secretary of state refers to this as changing requirements, thereby not making any compromises on the demands. This was done by placing so called national contracts. This way of ‘problem solving’ will be discussed later in this section. In conclusion, **rational persuasion** as tactics based on soft power resources (knowledge) and **socio-economic resources** (their client/governmental status and the accompanying financial resources) were used as part of their influencing logic.

Means and Action at BWB’s Managerial level

In addition to the political level, **being informed** was an important asset at the BWB’s managerial level as well. Respondents noted that information was gathered both at the industrial partners as at the other founding nations. Due to international restrictions on cross-national auditing, a BWB division leader stated that in order to get information, one could only rely on their relation with their own German industry. To gather information in their ‘own’ companies also had the advantage of what he called ‘better visibility’ (B3). What he meant was that Germans know their German processes better than the French or the Italians and as such have a better understanding of what is going on in their companies. In addition to information from the companies, information from the other nations was just as valuable. Like the adagium ‘never surprise the boss’, the nations wanted to know what was going on with their partners and they did not want to be surprised during the official meetings:

“You try to find out what is really the matter. Why they behave like they do. To try to come to a solution. [...] You will try outside of the meeting structure. You will get a solution not in the NAD meeting, but at NAD level.” (B7)

In short, the BWB level wanted to know what was going on at both the industrial partners side as on the partner states’ side. They wanted to persuade their counterparts based on this information in combination with facts and figures and common sense.

Also similar to the Dutch practices are the escalation processes. Higher ranking officials were able to address issues at meetings where they could be solved, or at least heard:

“There are National Armaments Director meetings within the NH90 project and I have to prepare these NAD meetings for the German side and I will tell my NAD, what I want him to tell the other nations in that meeting. And if it’s important enough he will do so. [...] And that’s my job. I have no direct influence from my level, but on that level I have to prepare my NAD to do the right things.” (B7)

“Formally, I don’t get involved in these budgetary processes. Informally, it can help to talk to a higher level.” (B3)

Like in the Netherlands, the German BWB officials used their **hierarchical structure** as a means to act: **escalate the problem** so officials acting at a higher lever can address their interests.

Lobbying and coalition formation are activities that were also found at the BWB. According to a BWB division leader ‘*you need to establish a certain degree of understanding of the interests of each nation. That is the basis of collaboration.*’ Respondents stated they used informal meetings to convince other actors to share the same interests. The same division leader noted that **coalition formation**, the formal outing of **lobbying**, was necessary to achieve the ‘budget’ ends described earlier in this section:

We need to collaborate. To share these costs in development, to have larger numbers, to reduce the costs of production. (B3)

In this case, actors use several means (relations and ratio) and acts (lobbying and coalition formation) to pursue their ends (project management, or to be more precise: stay within the budgetary framework).

At the managerial level, **contracts** are used as means to influence their counterparts. Especially the industrial partners. At this level, respondents had a perspective on the use of contracts that can be described as rather strict:

“Industry has to perform according to their contract. They are not doing that. This means they are not getting paid as intended. So if you have no helicopter delivery, they are not paid

for the delivery of helicopters. Milestones which are not achieved are not paid. That is the normal consequence.”(B3)

Threatening not to pay for undelivered services was indicated as an action towards the private companies. These threats had some impact because the Germans were able to, and did actually, stop their payments. In line with the Dutch threats, it is not sure to what extent they actually influenced the private counterparts. On the one hand, the companies knew the nations were in too deep to stop payments or even to stop the whole project, while on the other hand the companies needed the money to generate a healthy cash flow. The effect of outward influencing was outside the scope of this research, but this consideration will return in the discussion chapter.

At the managerial level, BWB officials used **‘rational persuasion’** (‘be informed’), **‘consultation’** (escalation), and **coalition formation** as tactics. In addition, **‘soft power sources’** (knowledge and social capital in the form of relations/partners) and **‘institutional resources’** (contracts and higher level authority) offered means to carry out these activities.

Means and Action at the Project Level

According to a BWB project leader, there is only one tool that is superior to all others when it comes to influencing counterparts: ‘Facts!’ (B4). The use of facts, or **information** as most respondents call this topic, has been indicated to be an important tool in this aspect at different levels within the BWB, just as it was at the DMO. What is interesting is that respondents at the operational level concluded that gathering information was important, but gathering information from industry was rather difficult:

“They [industry] are always thinking how it’s in their interest to share information. [...] So it’s very hard, especially when discussing topics about intellectual property rights. Sometimes we think we can have some information because it is contracted, but then they think that this information may possibly reach their competitors as well...then it’s very hard to get this information.” (B8)

“That’s the problem we have. The industry is not open to us. They hide the problems up to the moment that they can hide them no longer. If they were more open, I think they could work a lot better than they do.” (B4)

Information sharing between the BWB and their industry (Eurocopter Germany) was difficult, but the information sharing between the BWB and the partner nations was not absolutely open either.

“Yes, we have information exchange [with the nations], but we have information sharing if we agreed in advance on what is to be discussed or if requested. Not automatically. First, we will talk with our own industry about what information we can distribute. It depends on the subject, of course. So, if nations are interested, we give presentations to the nations and we invite them to come to Germany and we tell them about the contract and everything about it. We even send them our contract. We showed it to them, but not the price. Only the contract and the technical issues. But not the prices.” (B6)

Providing an informational barrier for the purpose of protecting their own industry fits the German political goal of protection. Based on the BWB project members’ responses, it can be stated that information, most preferably in the form of facts, is used to either convince counterparts based on ratio and ‘normal human sense’ (B5) or to realize a state of information asymmetry to be a step ahead of the game. BWB project members also encountered the negative effects of information asymmetry themselves, when they were on the ‘downside’ of the information balance:

“We often don’t have enough experience compared to our industrial partners. We shift positions every two, three or four years. These guys stay on their position much longer. They have much more experience and they know all the details about the project. Than we are in a bad position.” (B9)

Interestingly enough, the opposite of information asymmetry was assumed to sort out some effect as well. According to a project member, sharing information could speed up the process, because it provided insights in each others’ problems. This way, the goal of proceeding faster was achieved, as these problems were now more easily and faster resolved than if this information was hold back. In conclusion, information is used as a means that can be applied or hold back, whatever effect is thought beneficial for their interests.

In line with the DMO findings, the use of **contracts** within the BWB divided two kinds of believers: supporters of a strict use of contracts and those who are more skeptical and

who used contracts as stepping stones to come to an ultimate solution. At the more technical oriented project level, one respondent claimed:

“This contract cannot be used in a ‘hard’ way, or very strict, because it is too general and not completely clear.” (B9)

The same respondent also stated that lower in the organization hierarchy, the technical issues become more concrete and more precise. Imprecise contracts then only add to the confusion. What did give strict directions for the project members were the fixed prices and penalties that were also specified in the contract. Difference in opinion on this specific matter seemed to depend on the topic of discussion: money attracted the strict believers, while technical issues formed a group of incredulous users of contracts. Actions related to the contracts were to **postpone** or to **stop signing contracts**. Both activities created a state of uncertainty for the industrial partners. Because the companies tried to avoid this state, these activities did actually influence them. However, postponing or stopping the contracting process also had a negative side effect: they slowed down progress. This effect is contra productive to the goal every partner and every hierarchical level pursued, but was used nevertheless. It should be noted that threatening to postpone payments was indeed observed at the operational level, but the authority to actually do so was positioned at the managerial level. These influencing tactics are therefore linked to means from a different level.

In addition to these contracting processes, there was another ability for the Germans that affected the influencing process and that was to escape the influencing process all together. Although all German respondents acknowledged the importance of cooperation, they did not continue the influencing process up to the point where they themselves or their partners had to compromise in order to come to a final agreement:

“In the NH 90 program, Germany is one of the bigger customers. And very often we have to agree on decisions that are not 100% covering our general requirements. But what we are doing of course is that we are trying to correct this deviation through national contracts. That we say this is the international contract and then we have to place a national contract in order to match German requirement 100%.” (B6)

In addition to placing national contracts, changing technical requirements or operational capabilities is another way of escaping the influencing process. The *outward* influencing process to be more precise, as these adaptations to the original requirements often

require a lot of internal influencing. Although these processes may seem like the Germans did not want to cooperate at all, this was not the case. In fact, **coalition formation** was an activity indicated by many respondents at the project level to be very important.

“I think the major objective is always to stay together in the international cooperation and to place a contract for all the participants within the program.” (B6)

“It’s easier to hold your grounds if there is another nation beside you.” (B5)

In general it can be stated that the project members used a three-step model when it came to coalition formation. First they decided in their national position before confronting others with their goals. Then they tried to harmonize the other nations. This could be done by either convincing them to follow their lead or to adapt their own requirements. Finally, if they succeeded, they used their coalition to put pressure on industry. However, if they failed to form a coalition they turned to the option of placing national contracts. In both ways, the ultimate goal is to obtain the demanded requirements within reasonable margins in both budget and time, in which the coalition option often appeared to be the cheapest solution

A final means-act relation indicated by the respondents at the operational level was the (personal) **relations** and **escalation** combination:

“Yes, of course, like everywhere the personal relationships are important. He [BWB division leader] knows people in Bonn, in the hierarchy a little more up. I think it’s in every country the same. Problems are solved not by trying to solve it from here, it comes from somewhere else, for big issues.” (B5)

“We can negotiate almost to the end. And then we involve the division leader. He then has small talks with members of the Steering Committee and with Eurocopter officials about I don’t know how many million Euros and they decide the end price.” (B5)

“They can shift people, shift priorities, and they have oversights of the overall budgets. So he [the BWB president] can take decisions and put priorities on something.” (B6)

Denoted in the first quote, the escalation process does not differ largely from those in the Netherlands. Although there was a perceived distance (literally with offices in Koblenz, Bonn and Berlin) between the hierarchies, the initial escalation processes are very alike.

To summarize the above, actors at the operational level used **rational persuasion**, **consultation** in the form escalation, **coalitions**, **legitimizing**, and **pressure tactics**. **‘Soft power resources’** as information or knowledge and **‘institutional resources’** (contracts and higher level authority) offered the means to do so.

6.3.4 Case Summary

Table 10 lists the findings of the BWB case per level. It portrays differences in means, tactics and in the emphasis within the set of constraints.

| BWB | Means | Tactics | Ends | Emphasis in Set of Constraints |
|-------------|--|---|--|---|
| Political | <ul style="list-style-type: none"> ▪ Soft power ▪ Socio-economic | <ul style="list-style-type: none"> ▪ Pressure ▪ Rational persuasion | <ul style="list-style-type: none"> ▪ Transitive | <ul style="list-style-type: none"> ▪ No emphasis |
| Managerial | <ul style="list-style-type: none"> ▪ Soft power ▪ Institutional | <ul style="list-style-type: none"> ▪ Coalition formation ▪ Consultation (escalation) ▪ Rational persuasion | <ul style="list-style-type: none"> ▪ Transitive | <ul style="list-style-type: none"> ▪ No emphasis |
| Operational | <ul style="list-style-type: none"> ▪ Soft power ▪ Institutional | <ul style="list-style-type: none"> ▪ Coalition ▪ Consultation (escalation) ▪ Legitimizing ▪ Pressure ▪ Rational persuasion | <ul style="list-style-type: none"> ▪ Transitive | <ul style="list-style-type: none"> ▪ product |

Table 10: Findings Overview BWB Case

The use of rational considerations, facts, and logic as the most important activities, indicates a 'rational strategy'. In addition, 'hard strategies' were also commonly used by applying pressure or a rather manipulative use of exchange (both exerted by threatening to postpone or stop signing contracts) and by upward appeal in the case of escalation.

In short, the BWB is an (institutionally) strong player due to its share size and the relation it has with its industry. This relation provides them with an escape that offers a 100% goal attainment in terms of product specification. Economies of scale are then sacrificed for the sake of employability, product requirements, and the establishment of a competitive position of their industry towards the United States.

6.4 NAHEMA: Representing without Authority

In comparison to the DMO and BWB organization, the NAHEMA organization is considerably smaller. In budget as well as in tasks and number of employees. Furthermore, it has significantly less hierarchical layers and all personnel is situated in the same building. With reference to its task, NAHEMA faces a challenging mission. Whereas the Dutch DMO and the German BWB represent their successive defense forces, NAHEMA's task is to represent the interests of others, i.e. the four nations. As the former chapters and sections already exemplified, these interests are not always perfectly overlapping. With these differences in mind, the following sections will present the means, ends, and actions of the NAHEMA employees during their influencing processes.

6.4.1 Context

Although the context of NAHEMA is inherently different from that of the DMO and BWB, there is also a similarity. Whereas political and operational stakeholders bound the influencing capabilities by means of demanded requirements and constraints of the two materiel organizations, the same is the case for NAHEMA. Interesting enough, it are the materiel organizations themselves that bound these capabilities by not providing enough mandate to NAHEMA. This difficulty in NAHEMA's activities towards NHI, that relates to an interdependency problem, can be prescribed to '**inter-organizational complexity**'. Furthermore, NAHEMA had to deal with a change in customer needs as the founding nations, at various times during the project, altered their specifications. In combination with NHI's responses to market related factors (selling helicopters to new customers affected NAHEMA's time schedule as well), this contributes to an increase in **environment complexity**. **Development complexity** also has its impact on NAHEMA. Integrating many different decisions, ranging from product requirements from the founding nations, to assessing development process requirements at NHI and managing relationships between both, induced a rather complex burden on the shoulders of NAHEMA. It also placed NAHEMA in a complex situation as it did not receive the appropriate mandate from the nations to deal with these complexities. In addition, NAHEMA served as a platform for cross-functional cooperation and integration as it was the linking pin between operational, financial, legislative and technical specialists from both the nations and industry. This, in its turn, added to **organizational complexity**.

6.4.2 Ends

The title of this section might already have revealed that differences in ends between the hierarchical layers within NAHEMA are not as prominent as they were in the other cases. Because there is no clear distinction in the ends, this means that a part of the logics of the influencing concept, being means-ends frames, is identical between the layers. The overarching goal was to pursue the interests of the four founding nations. The following quotes from respectively the working group level, the division leader level and the director level show this shared goal:

“The role of NAHEMA is to try to understand each nation’s need and to look for a common way that is suitable for all of them.” (N1)

“We try to create the best conditions for the nations, with their individual interests in mind.” (N4)

“We mostly focus on what the four nations have in common.” (N1)

Although lower level employees seem to focus more on solving technical problems, whereas the higher level officials were more involved with mediating between discussants, the end result was the same: trying to establish a shared goal that could be presented to industry as the NAHEMA objective. This objective can be classified as purely transitive in nature. In contrast to the DMO and BWB organizations, no distinctions in ends could be found between organizational layers.

6.4.3 Means and Action

There are no clear distinctions in means and actions between top level and divisional level at NAHEMA. They will therefore be discussed together. The first means officials have at their disposal is **information**. Listening, talking, and making ‘counter’ proposals to scan the counterparts’ positions are all activities that lead to an end state in which the officials have enough information to use ratio to convince both the nations, when necessary, and the industrial partners. During these meetings they used something that was coined ‘robust diplomacy’. Examples were given by two division leaders:

“ [...] and although I was new at this job, I knew what was in the contract because I had been a project leader before. There was

something in the contract that was very important for the nations and it was something the industry didn't want. And then they acted in an indirect, dirty way. They thought that I didn't know what was in that contract because I was new. They tried to trick me. Unfortunately for them I was aware of that. So after that meeting I sat really close to him, looked him deep in the eyes and told him to never, ever trick me that way again! And he didn't. We then knew each other and from then on we could get along very well." (N4)

"Sometimes you must have some robust diplomacy. I'm famous for that. Robust in the sense of telling them, okay, if you don't come to a conclusion right now, you're out of that issue. You can take care of this on your own. Some look at me a bit...not disappointed, but...well, it's the only way to do it." (N2)

Robust diplomacy was not only used to convince others, but also to confront others, to direct the conversation towards a confrontation to scan the counterparts' boundaries. They wanted to know how far they could go, or in other words to define their room to maneuver.

"Sometimes it's necessary. You need to bang the table to get things done. To direct it towards a confrontation, but you always need to know a way out." (N4)

Scanning the environment with listening, talking, confronting others, banging the table, was used to get information. Although some of these activities may appear harsh, they can be denoted as personal skills and as such are rather soft compared to institutional means like **contracts and MoU's**. Similar to officials in other organizations, NAHEMA officials indicated contracts and MoU's as means they used to convince others. In addition to the use of contracts and MoU's, all the NAHEMA respondents indicated a lack of mandate as a counterweight to the use of these contracts. The lack of precision in these contracts gave rise to many disputes, but since the nations did not hand over a full mandate, NAHEMA was unable to solve these differences of opinion.

An action that was mentioned during interviews with DMO and BWB employees was also mentioned by NAHEMA officials: **escalation**. What was interesting in this context, was how escalation was perceived by two division leaders when interacting with industry. In this case, escalation was not initiated by them, but by their industrial counterparts:

“NHI is a professional organization and I have the feeling that they [the partner companies that constitute NHI] think through the steps in these negotiation processes very thoroughly. They put in a whole army of people. Once, during a contract amendment, the NHI General Manager asked our General Manager, who was more of a diplomat: “let’s finish this at our level”. And that went terribly wrong. Because they have so many people working on these negotiations. Our GM went in that meeting without being fully prepared. I warned him for that. Finally, we had to do it all over again at our level.” (N4)

Escalation can thus be used strategically by skipping a level deliberately. Although this action was not executed by a NAHEMA official, this anecdote does provide some insight in how this particular process can be used. Escalation in itself was indicated as an action that was used frequently at the divisional level.

In addition to escalation, **lobbying and coalition formation** were indicated as often used activities by the NAHEMA division leaders. Lobbying almost seemed the single most performed activity, which should be no surprise as it is NAHEMA’s core business to allocate the four nation’s wishes into a single proposition towards industry. This involves a lot of meetings, discussions, and so-called ‘coffee-break-get-togethers’. Especially these last activities were prominent and often mentioned during the interviews.

“And then ‘B’ told ‘C’: look, here is a letter signed by mr. X and there are very explicit promises in this letter towards the minister of economic affairs. And I just heard from ‘G’ that it has not been taken care of. As far as I can see that can only mean two things: Or mr. X is not in control, or he has been lying. There are no other options. So go and ask him for an answer.[...] He didn’t tell him this during the meeting...no...during the coffee break. Just the two of them, nobody else was there.” (N4)

Like the lobbying activities at the DMO and the BWB, lobbying at NAHEMA served the same goal: build a coalition to have more impact on the industrial partners. At that point it is a matter of numbers. The bigger the numbers, the bigger the impact. Although a part of coalition formation is linked towards the moral issue of ‘standing strong together’, another part of the impact is also the rationalization of numbers by referring to the economies of scale.

Some activities mentioned by the interviewees were more implicit in nature. Implicit in the sense that they were embedded in explanations, examples, and anecdotes and because they were often related to ‘problem solving’ instead of influencing. This distinction is an interesting one, because the influencing process cannot endure indefinitely and at some moment in time a decision has to be made and the problem has to be solved, one way or the other. This is where the two concepts come together. Respondents brought up ‘shorten one leg of the magic triangle’ (thereby referring to increasing or decreasing budgets or timelines and to the alteration of product qualifications), making provisions, financial compensation, etcetera. Building on consensus appeared to be a dominant tactic for NAHEMA. It is a consequence of the role it plays within the program structure: being a representative for multiple actors with competing interests. Consequently, there is always one partner that has to compromise. Whether it is a public or a private organization.

To summarize the above, two resources were applied to influence others. Actors at this level relied on social capital and addressed rational considerations to influence their counterparts (‘coalition formation’ and ‘rational persuasion’ linked to ‘soft power resources’) They furthermore tried to establish the legitimacy of a request by referring to contracts and MoU’s and to escalate issues to a higher authority (‘legitimizing’ and ‘escalation’ linked to ‘institutional resources’)..

Means and Ends at the Operational Level

Descending one hierarchical layer in the NAHEMA hierarchy, the operational level comes in sight. Every respondent at this level indicated **contracts** as their primary source to influence others. Contracts were perceived as a framework in which they could maneuver. They did try to reach the boundaries of this framework, but they were unable to open it, to change it, or to expand the boundaries of the framework. Members at this level also tried to persuade others, in this case industry, with the pending possibility of penalties that were enclosed in the contract. What was interesting to hear, was that penalties were used as a pressure means towards industry, but if they pressed too hard, things might break:

“When they don’t reach their milestones, we only pay, let’s say, 80 percent. Bad luck, then they should have tried harder. But what happens if you don’t have any penalties left? You’ll lose all the pressure means you have. And then nothing is going to happen anymore, because they don’t make any profit, so they don’t care about the project anymore. All the good people will be transferred to

more profitable projects. Furthermore, they will put all their efforts in the export countries. That's where they can still make some money. So, that's the effect it will have if you put too much pressure on them with penalties.” (N5)

In addition to contracts and penalties, operational NAHEMA members also indicated ‘**information**’ as a means to influence others. In the NAHEMA case at the operational level, members scanned their environment to search for areas in which the nations had a harmonized position. This activity directly serves the NAHEMA goal: create a shared position towards industry. Furthermore, information also served the escalation process:

“If you escalate your problem, you have to inform your boss. You have to speak with him about what strategy has been used, what arguments, what exactly has been given, what exactly they have answered, so that the boss is prepared.” (N6)

In this case, the information exchange process between the hierarchical layers appeared to be very important and therefore the information processed was very detailed. This example shows the relation between information exchange processes and the escalation processes. In theory, they do not necessarily need to be linked, but for an effective escalation process it is unavoidable. The escalation process in itself was also mentioned as an activity that was used by NAHEMA members. To be more precise, one employee introduced ‘strategic escalation’: a process in which individuals from different layers combine their efforts to influence others. Unfortunately, they were “not very good at those strategic affairs”, according to that same respondent. Other interviews confirmed this perception, as most respondents do indicate a fair amount of intra-organizational information exchange during escalation processes, but not one of them mentioned meetings in which several organizational members introduce a detailed strategic plan that could enhance the influencing process. The only notion of strategic escalation mentioned at this level, was used against them, when a commercial director of NHI did not attend a certain meeting:

“ [...] for example, the commercial director of NHI is almost never present during the negotiations. And I have to be present. So it's a position thing. When he's not involved, he counts as a number [level] on top of me. And that's why I'm not happy.” (N6)

The intentional use of positions at NHI was noticed by several NAHEMA respondents, indicating a (perception of a) different use of escalation strategy between the two organizations.

A final means at the operational level were '**relations**'. Relations can help within the organization, for example during escalation processes, to speed up processes. Interacting with someone you have a positive working relation with enables a faster exchange of ideas, information, and requests. Maintaining relationships with counterparts also has its benefits. One respondent stated that she 'tries to have a special relationship with everybody' because 'it's a good way to get information'. This quote indicates relations as a means to serve other means (get information). However, from an organizational point of view it is important to know that when employees leave the organization, they often take their carefully developed relationships with them. Or in other words, their successors often need to build up new relationships and new information sources need to be developed.

The indication of the importance of human resources stood not on its own. Several officials at NAHEMA noted that the management of human resources differs from personnel policies at their industrial partners. First of all, there is no open application for vacant jobs at NAHEMA. Due to the distribution of positions based on workshare in the project, NAHEMA is committed to accept applicants appointed by the respective nations. This sometimes resulted not in the best candidate, but in the best available applicant. Furthermore, NAHEMA officials believed that job rotation resulted in a lack of experience. Whereas their NHI counterparts build up experience within the project, or at least within the area of project management, NAHEMA members rotated back into their military career paths.

In conclusion, a sharp differentiation between the organizational layers with reference to ends pursued could not be made. A single, overarching, transitive goal was the (condition of) signing contracts with the industrial partners with the best conditions possible for the nations. A 'proximate' goal was therefore to reach a harmonized position between these nations. Institutional resources (contracts) and soft power resources (knowledge and social capital by means of relations) are indicated as means, whereas rational persuasion, legitimizing, and escalation were indicated as the most important activities at this level.

Indicated as contra-productive was a lack of effective human resource management. It was not said that all personnel was inadequate, but job rotation had a negative effect on project experience at NAHEMA. This was in sharp contrast to the perceived experience of their NHI counterparts. This observation can be labeled as a lack of socio-economic

resources. In addition, the lack of mandate can be labeled as a lack of (that specific) institutional resource.

6.3.4 Case Summary

Table 11 lists the findings of the NAHEMA case. Differences between the levels are marginal.

| NAHEMA | Means | Tactics | Ends | Emphasis in Set of Constraints |
|------------------------|---|---|--|---|
| Political & Managerial | <ul style="list-style-type: none"> ▪ Soft power ▪ Institutional | <ul style="list-style-type: none"> ▪ Coalition ▪ Consultation (escalation) ▪ Legitimizing ▪ Rational persuasion | <ul style="list-style-type: none"> ▪ Transitive | <ul style="list-style-type: none"> ▪ No emphasis |
| Operational | <ul style="list-style-type: none"> ▪ Soft power ▪ Institutional | <ul style="list-style-type: none"> ▪ Consultation (escalation) ▪ Legitimizing ▪ Rational persuasion | <ul style="list-style-type: none"> ▪ Transitive | <ul style="list-style-type: none"> ▪ No emphasis |

Table 11: Findings Overview NAHEMA Case

In short, officials at NAHEMA used 'hard strategies' to influence their project partners. Legitimizing, coalition formation, and upward appeal refer to this kind of strategy, although respondents claimed that a lack of authority decreased the impact of their influencing attempts. To compensate, rational strategies were applied by using facts and logic to influence others.

6.5 Fokker: Small in Size, but Institutionally Strong

Chapter four already revealed that to provide for accurate management capabilities, Fokker developed a designated project organization for the NH90 program, the European Defense Business Line (EDBL). In addition to the EDBL, officials from Fokker Aerostructures and the Stork Holding were involved in the NH90 Program as well. With a rather turbulent history of take-overs and mergers, Fokker managed to continuously play its role within the NHI organization. The following section zooms in on the influencing activities of Fokker and the Stork holding.

6.5.1 Context

Fokker's context is different from that of DMO, BWB, and NAHEMA because of the **technological complexities** it had to deal with. In contrast to the other cases, Fokker is directly involved in the integration of components and the introduction of new materials and production technologies ('technological newness'). The complexities this brings about are described in chapter four. Furthermore, as a supplier Fokker had to deal with unpredictable changes in market related factors, such as the change in customer needs and the reaction of competitors. Fokker had to deal with these changes not only from the founding nations, but also from the so-called 'export countries'. Furthermore, the companies, including Fokker, had to adapt to every single nation's aviation law. These illustrations exemplify both Fokker's **market** (or environment) **complexity** as **marketing complexity**. Chapter four also revealed that decision making in new product development projects constantly endures new obstacles due to unforeseen changes in the research, development, and production processes. This contributes to **development complexity**. **Organizational complexity** was less prominent at Fokker. Due to the organizational set up with a separate program office, less stakeholders were involved. On one hand this evolves from the fact that there are no 'client demands' from operational units (because Fokker is a supplier) and on the other hand because Fokker incorporated functional specialists into the IPO that translated demands from NAHEMA or NHI to the operational units. In contrast to organizational complexities, **inter-organizational complexities** were very prominent. Due to the interdependency with the other partner companies, each with its own workshare, and with the public clients in several countries, Fokker incorporated this sort of complexity at the moment it started its cooperation in the NH90 program.

6.5.2 Ends

In contrast to the public services DMO and BWB, Fokker has no politico-economical goals. The single most important goal at Fokker, pursued at all levels, was making profit. A goal not uncommon for a private company. This overarching goal directed most activities within the company, but fine distinctions could be made between two levels.

Ends at the Stork-Fokker Top Level

The ends pursued at the highest levels of the Stork Holding and Fokker aerospace group level do include economical goals (and these goals are pursued at all organizational levels), but these goals have no political intent other than mere self interest. Although this focus on making profit did align the ends pursued throughout the organization, differences could be found between the levels nevertheless. These differences were mostly observed in a shift of focus in the project characteristics product, time, and money. Asking respondents at this level what ends they pursued often resulted in proximate goals:

“You want to move on. These things are putting things on a hold. And that costs a lot of money.” (F2)

“From a professional point of view I would say that our main goal is to optimize program management.” (F1)

“We want to participate in military programs.” (F1)

These ends, however, all appeared to serve a higher goal: making profit. Asking why they want to make progress, why they want to optimize management, and why they want to participate in military programs coincided in a single answer: profit. These answers showed that officials at this level are interested in all three sides of the magic triangle of project management, but they had a special interest in the ‘money side’. This is not a surprising conclusion, as these members are both physically and mentally more distant from the project and are evaluated for their company results, not, for instance, specifically for the performance of a single helicopter. In short, this results in a reflexive goal attainment.

Ends at the Operational Level

Whereas the higher echelon officials are not evaluated for their project performances, the opposite is the case for the program director and his team. As the COO of the Stork holding stated:

“The program director is responsible for the end result of his assignment. Successful closure, product performance, etcetera.” (F1)

This end result is of course strongly related to the financial outcome of the project, but it does show the difference in involvement between the levels. Again, the main goal at this level was also making profit, but where the top level was mostly interested in the project's outcome in terms of financial gains or losses, the operational level was mostly interested in the project's processes. This was retraced in their answers at the question what goals they pursued:

“We need to have a say [...] and we need to have insight in the risk exposure of the several decisions taken at NHI” (F3)

“We have to cooperate to solve problems and to make sure the customer doesn't take advantage of us.” (F4)

“We need to know how decisions at NHI influence our customers.” (F3)

These goals, cooperation, and getting information, turned out to be sub goals, or means, directed at opportunities to influence the project's management processes. Overall, members at the operational level were focused on all three legs of the triangle: product, time, and money. Differentiation between both levels can be found in a concern for outcome versus a concern for processes. Both, however, with one aligned, overarching goal: making profit.

In conclusion, it can be stated that there is a fine distinction of ends that are pursued within the Stork-Fokker organization. Whereas time, product, and especially money are the outcome of the management process and as such of interest at the highest levels, it is the management process itself that is the goal at the operational level. The focus at both the outcome and the process is directed towards a single most important indicator: money. It can therefore be concluded that goals at this level are both reflexive and transitive in nature.

6.5.3 Means and Action

The organizational set-up of NHI, including its decision making processes, enabled Fokker to play an eminent role during the project. At corporate level, officials tried very hard to maintain their position in the highest NHI committees. In addition to their position that ensured their ability to play an active role, it were veto rights in particular that gave them a voice that could be heard among the other partners. Partners which were all significantly larger in size.

“We had a veto right and that gave a certain amount of protection, of course. Imagine, with a share of 5%...and that’s the reason we wanted a veto, so we were sure they couldn’t say: ‘Well, we’ve decided that you and your 5% are thrown out of the project!’”. (F1)

The origin of the veto rights that gave Fokker some protection was based on the relation of two competitors, who now had to cooperate to successfully finish this project. This forced relationship did influence the whole project, starting with the decision making process:

“Eurocopter and Agusta didn’t trust each other. Not a bit. And I’m speaking in the past tense, which I shouldn’t. But how do you deal with that? With a foundation of distrust! And how do you manage distrust? By deciding everything based on consensus.” (F2)

This consensus model gave Fokker a voice and some protection and from that perspective it had a positive effect for the Dutch manufacturer. However, this same model also had a negative side effect as it complicated decision making:

“It’s a very complicated model of cooperation. It’s also a model in which everybody has the other one by the throat, because everything has to be decided based on consensus, so nothing can be enforced by power. Everybody has the possibility to put things on a hold.” (F2)

By putting things on hold, Fokker could delay the project’s progress, thereby putting pressure on their partners. Although the veto rights provided some importance and influence, the Fokker respondents were realistic about the influence they had with their share of only five percent.

“ The perception of the other two partners [Eurocopter and Agusta] was that it couldn’t be true that a partner with only five percent was giving them a hard time. He should just shut up and listen. Besides, they were helicopter builders and Fokker wasn’t. So with such a small share you just had to shut your mouth and do what they told you. Which is a rather logical stance from their point of view.” (F1)

“Look, we shouldn’t forget that we were just a little tot, so...you are not able to control the world.(F2)

Several respondents at Fokker stated that their relative small share in the project forced them to compensate in other areas. Especially ‘strategic plans’ were pointed out as their most important means to influence others. These plans incorporated several activities: **lobbying, escalation, gathering information, and using relations:**

“If you want to influence others and you’ve only got five percent, you have to lobby incredibly. At all levels. You have to make sure that our vision and message is clear and well known at all levels within Fokker. We have many contacts at many levels, with Agusta and Eurocopter, and you have to make sure that there is only one way of communicating about this topic and that everybody, engineer, chief engineer, managers, shareholder meeting attendants, tells the same story.” (F1)

Fokker employees had meetings in which they figured out their story line. This also included who should talk to whom, what (proximate) goals he or she should pursue, and these results were evaluated. These evaluations offered the input for the next steps to be taken and so on. They directed their influencing processes across the organizational layers.

“We treated these problems as projects. We thought of them as projects and we have to make sure we do well. Well in terms of good for the NH90 project and surely not worse for Fokker. Those were the conditions. So we treated it as a project, installed a project management, channeled the information to all persons involved, had regular progress and coordination meetings and we installed a negotiation team. With escalation possibilities. And some times, escalation was necessary.[...] We always talked our tactics through. The team had a mandate. And if people would step out of that

mandate, we had another meeting. And after every step we thought about our next step.” (F1)

The involvement of several hierarchical layers was a means that Fokker used explicitly in their influencing activities. The previous quote showed **escalation** as an integral part of influencing activities at Fokker. The COO of Stork also stated that ‘de-escalation’, placing issues at a lower level, instead of a higher level, could work out better than solving problems at their own level or even escalating problems.

“It’s sometimes possible that there is better chemistry at a lower level than there is at a higher level. And everything you can get done at a lower level is best, because it remains questionable if you can get things done at a higher level.” (F1)

Fokker was well aware of the escalation possibilities and structured their organization likewise. Two examples were given. Eurocopter and Agusta had the option to involve the CEO of their holding companies into the process (EADS and FinMecanica). Because Fokker (or the Stork holding level) could not escalate any further, they decided that the director of the Aerospace group should attend the shareholders assembly, thereby leaving one escalation option available to the CEO of the Stork holding. The same happened within the Fokker IPO where the program director was left in place, although in practice he did not direct his subordinates as shown in figure 20 in chapter four. He remained seated so they had the opportunity to escalate problems, without their counterparts having to discuss their issues with the same person after escalation.

An interesting remark about escalation was made by the COO of Stork. He pointed out that escalation, in addition of pushing problems to officials with a larger mandate, also had a second purpose:

“The advantage of escalation is that actors than know: ok, this serious. If they can’t get things done at their own level, something is wrong.” (F1)

This signaling function of escalation was mentioned more frequently by other respondents at other organizations as well. Placing higher echelon officials at the table made clear that they were serious about their case. However, the down side is that escalation from there on was more difficult, because then they already had ‘played that card’ (O5).

In addition to the importance of escalation, Fokker was aware of the significance of **information**. One respondent declared that “knowing your partner is of vital importance during influencing processes” (F2). The information flow goes both ways. To gather information, Fokker installed employees at key positions at NHI.

“Because of this distrust I mentioned earlier and because Fokker’s knowledge about building helicopters was not that immense, we ‘enforced’ positions we thought they would provide us with good insights at what’s happening at NHI. One was the finance/contracting position, because then we had a good eye on the money (flows). And because we are good at it. [...] The second was the procurement position. And especially workshare management. We wanted to know what was going on there.” (F2)

These NHI employees, or boundary spanners from a Fokker point of view, provided Fokker with essential information. It was information that was coming their way. The opposite was also true. By informing others, Fokker could influence the project as well. In addition to informing their private partners, they also informed their public partner, the Dutch DMO. Although they did not mention the word ‘use’, they did ‘involve’ the Dutch National Armaments Director in the NH90 program to support their case:

“Of course we kept him [NAD] informed. About the discussions, the crises...[...] At one moment, when we had to present something I didn’t totally agree on, and the NAD knew this. I informed him, told him that we could not decide yet but that we also couldn’t stop it...we couldn’t publically confront our own partners...well, he then asked the right questions during that meeting and he made some good remarks. So, yes, I guess he made our joint venture partners realize what our position was.” (F1)

Because of their relative small size compared to their counterparts, it was essential for Fokker to obtain positions at every level of the NHI organization. Using relations, informing them, escalating and de-escalating issues, lobbying, and gathering information were fundamental activities at the top level of the Fokker/Stork organization. They used these activities tactically, integrated their organizational structure and escalation processes, and put a lot of effort in a step-by-step approach of their lobbying activities.

To summarize the above, actors at this level conducted coalition, consultation, pressure, and legitimating as tactics, with institutional means (veto rights) and soft power resources (social capital and knowledge) as powerbases.

Means and Activities at the Operational Level

The preceding observations indicated the involvement of several organizational layers with reference to the **strategic plans** Fokker executed. It is therefore no surprise that the respondents at the operational level, like respondents at higher echelons at Fokker/Stork, indicated the use of strategic plans as their main asset when it comes to influencing. The participation of a selected number of Fokker employees throughout the organization is an integral part of these strategic plans. Therefore, **escalation** can be seen as an activity that is inherently related to this means. In addition, escalation is also used in the traditional sense. Officials at higher positions were involved in problem solving and decision making processes when employees were unable to solve them at their own level.

Furthermore, the **veto right** was a means that was also used at the operational level. During negotiations, however, the right to veto certain decisions was not played as hard as it may sound:

“Well...the point is...you don’t really speak out your veto. You just tell them that you don’t agree or that you are just not ready to decide on the topic yet. And then there is no discussion and no decision is taken. You then normally keep on talking until you do agree. So it’s more finding a consensus than using your right to veto.” (F6)

Whether veto was used or the consensus process, they both offered Fokker members at this level some power during the negotiation process. But also at this level, they acknowledged their relative small size and the accompanied limited impact during these processes:

“Look, the ‘grand’ solution will, ultimately, come from the big boys. Eurocopter and Agusta. Let’s be honest. We can come up with great ideas, I think we’re appreciated for our negotiation skills, but in the end...the solutions, the big ideas will come from the big boys. And I thinks that’s reasonable.” (F6)

This consideration shows the relative power of veto rights. It indicates a formal source of power that has relative strength at the short term, but loses its power, with reference to

its holder's share size, in the long term. Respondents therefore preferred consensus based decisions above veto right hold ups, which they would lose eventually anyway.

The connection with **relations** was mentioned in the previous paragraph as well. Respondents at the operational level involved their customers in their influencing processes as well. One respondent said "We let our customers ask questions at NHI we don't want to ask" (F5). They also prepared important meetings together with the Dutch NH90 project team to engage the negotiations as good as possible, with an outcome that could benefit both parties. In addition of 'having' relations, it appeared to be very important to 'know' your relations.

"Specific actors have specific triggers that can be pushed effectively. It takes some time to learn, but it's the effort worthwhile." (F5)

"We make analyses of our counterparts. What is their motive? What is their interest? And sometimes, at a personal level, you know you just have to wait to make them sweat. You have to know your opponent." (F6)

Information about relations is the not the only form of information that was indicated as an important means for influencing. Information was also used for strategic plans for obvious reasons and for substantial discussions, experts were brought in for extra know-how. Furthermore, information did not only flow towards the respondents, but also from them towards their counterparts. "You have to inform your partners, so they don't have to guess" according to a former program director. The notion of information, again, plays a significant role in the influencing process. Gathering information was done by means of their own customers, boundary spanners at NHI, and experts within their own organization. Informing others contributed to the scanning processes of counterparts, indicating the boundaries of the room in which they could maneuver.

When asked how respondents influenced others by other means than previously mentioned, two other activities were pointed out.

"There is great demand for this helicopter. We can't handle this demand. That's not a Fokker statement, that's a NHI statement. [...] So, what we sometimes do is considering the option to delay the production of helicopters of the launching customers and to pay the fine in favor of producing new helicopter for new customers." (F5)

“ And then this high profile Frenchman says: ‘Well, if you don’t want to do this, maybe we should take it to court.’ I told him that that was fine by me. It would not be my preferred idea, but we have made financial reservations for that. So if you want, we’re ready. We are prepared. We’re Dutch. We prepare!” (F3)

What is interesting about these quotes, is that the respondents indicate ‘accepting fines’ and ‘going to court’ are influencing activities. But in fact, they are not pro-active activities and as such cannot account for influencing activities. In both cases, financial reserves are used as defense mechanism that enables a reaction towards an ‘hostile’ act of influencing. Where contracts were used as a means of influencing by the public actors, the answer to these means is this defense mechanism. Contracts in general were scarcely mentioned during the interviews with Fokker respondents. In one occasion, a former program director indicated contracts as a means, immediately adding the importance of environmental change:

“Based on contracts you can enforce rights and obligations. That’s about finances. But then again, the world has changed. Both technological and political.” (F3)

This quote shows that this respondent perceives these contracts as ‘non-fixed’. The price fixation mentioned in these contracts was the only other instance of mentioning contracts.

“With reference to the production phase, we were working with a fluid base line. So in fact, I think this kind of contract...Of course, at a given moment in time, you need to have fixed price contracts. Sure. When the product has a certain maturity. And it sounded real good to have a fixed price contract, with a phased approach, but I think the maturity of the helicopter, at that time, just wasn’t ready for that.” (F6)

Fokker respondents were, in contrast to for instance their (public) DMO and BWB counterparts, on the other end of the line. From that perspective, they had another vision on how to deal with these fixed price contracts. Interestingly enough, they hold an ambivalent stance towards paying and receiving fines:

"If they [the nations] want to leave this constellation...feel free...but we'll present the bill for doing so!" (F6)

"They [the nations] think they have the legal right to cash in penalties" (F6)

Although these quotes seem self centered at first, they obviously are in line with Fokker's reflexive goal: making profit.

The last activity mentioned in the influencing processes of Fokker employees at this level is what can be labeled as **'framing'** (Pfeffer, 1992: 189). By presenting ridiculous demands, partners would better receive smaller demands that would follow.

"With these very complex negotiations, you don't immediately ask for what you want. You ask for something completely different. That's just strategy. So, based on a reasonable yet unrealizable, so defacto ridiculous demand, we now have to reach a absolute minimum in our storyline and at moment, you switch over to what you really want. Than everybody is off his feet, but you get what you want." (F6)

"You start asking for things you know in advance they can't agree with, how reasonable they may sound. And then we...that's the good part of having only a five percent share...we use the 'Calimero-effect': aah...now we have only one, little, tiny demand and even that you ignore!" (F6)

This framing process was also observed by some NAHEMA participants. During the phase in which contracts were signed, the private partners made the project look very realistic, efficient, and opportune to the respective governments:

"Simply stated, if you aim low, from an industry perspective, and you offer them [the nations] a bite size bid with something that technically, financially, and time wise fits their political horizon, you got it. And if later in the project it appears you don't realize one, two, or three of those parameters, well... hey...problems for later...[...] You're already two administrations further down the line." (N5)

In short, the operational level is an integrated part of the influencing activities of Fokker. It therefore makes sense that escalation (consultation), informing and gathering information

(rational persuasion), and using relations (consultation with the use of social capital) are activities executed at all levels within the Fokker organization. Due to their relatively small size, building consensus (consultation) is of eminent importance, as vetoing decisions (pressure by institutional means) will not hold for a very long time. Contracts (institutional resources) were perceived as rather flexible that need to be adjusted when circumstances have changed, preferably to their advantage. Financial reserves were used as a defense mechanism, while framing issues could catch their counterparts off guard. (This tactic could be considered 'reverse ingratiation'.) When comparing both levels, means and activities do not differ immensely. Especially the 'use' of the NAD and in some particular instances the Secretary of State (social and political capital consultation), was only at the disposal of the Vice President of the Aerospace Group or the COO of the Stork holding. This seems logical, as these are relations at their respective levels.

6.5.4 Case Summary

Table 12 lists the findings of the Fokker case. Like the NAHEMA case, there are only slight differences between the levels. Most important is a shared emphasis at the operational level towards managing the project as a whole. No distinct emphasis within the set of constraints could be found.

| Fokker | Means | Tactics | Ends | Emphasis in Set of Constraints |
|------------------------|---|---|---|---|
| Political & Managerial | <ul style="list-style-type: none"> ▪ Soft power ▪ Institutional | <ul style="list-style-type: none"> ▪ Coalition ▪ Legitimizing ▪ Rational persuasion ▪ Consultation (escalation) | <ul style="list-style-type: none"> ▪ Reflexive | <ul style="list-style-type: none"> ▪ Money |
| Operational | <ul style="list-style-type: none"> ▪ Soft power ▪ Institutional | <ul style="list-style-type: none"> ▪ Legitimizing ▪ Rational persuasion ▪ Consultation (escalation) | <ul style="list-style-type: none"> ▪ Reflexive ▪ Transitive | <ul style="list-style-type: none"> ▪ No emphasis |

Table 12: Findings Overview Fokker Case

Officials at Fokker, throughout the organization, applied both hard and rational influencing strategies. Coalition formation, legitimating, and escalation refer to the first, whereas rational persuasion contribute to rational strategies.

In short, Fokker was a relatively small actor that played a very active role. Installing boundary spanners, matching escalation options, and using a strategic point of view that permeated through all the organizational layers, made Fokker an institutionally strong partner. A partner that was well aware of its 'Calimero' position²⁹.

²⁹ In the Netherlands and Belgium, *Calimero complex* is used to denote someone who thinks the world is against him or her because they are an underdog. In the Dutch cartoon, Calimero says *They are big and I is small and that is not fair, oh no!* (Dutch: "Zij zijn groot en ik is klein, en da's niet eerlijk, o nee!") Erroneous use of the word "ik" is intentional.)

CHAPTER SEVEN

CROSS-CASE ANALYSIS

Chapter 7 Cross-Case Analysis

This research utilized a multiple case study approach to generate a descriptive and exploratory understanding of organizational outward influencing activities in a new product development context. The objective of this chapter is to present the cross-case analysis of the findings described in chapter six, combined with the contextual factors that restrained or enabled these activities as described in chapter four and five. First, the influence of context on the cases is portrayed, based on the theoretical underpinnings of chapter two. Then, the actual influencing activities of the four cases are compared based on the similarities and differences in logics of action.

7.1 Research Context

This study employed both a theoretical replication logic and a literal replication logic to identify similarities and differences between the cases. As shown in table 12, the case studies varied in the roles they employed, covering buyer, supplier, and representative roles. Also, differences between their public and private background were observed, including the effect of a political apex on influencing processes. In addition to the theoretical replication logic, this study employed literal replication reasoning, by selecting two public agencies, both in a buyer role, both founding nations of the project, and both with similar stakeholders. In addition, the amount of workshare is also taken into account, as it separates ‘large’ partners from ‘small’ partners.

| | Role | Costshare and Workshare ³⁰ | Public - Private | Stakeholders | Stakeholders Included in research |
|---------------|----------------|---------------------------------------|------------------|--|-----------------------------------|
| DMO | Buyer | 3.9 % ³¹ | Public | Ministry of Defense Ministry of Economic Affairs Operational Units | Yes No No |
| BWB | Buyer | 36,3% ³² | Public | Ministry of Defense Ministry of Economic Affairs Operational Units | Yes No No |
| NAHEMA | Representative | N.A. | Public | Founding Nations | Yes |
| Fokker | Supplier | 5.5% ³³ | Private | Stork Holding | Yes |

Table 13: Replication and Literal Characteristics of the Cases

The Role of Complexities

The product description and context findings described in chapter four and five illustrated the complexities the cases encountered during the NH90 program. When comparing the complexities at the case level, it is interesting to notice the differences in complexities these organizations come across. Table 13 illustrates which complexities each case encountered.

| Complexity | Case | | | |
|-----------------------------|------------|------------|---------------|---------------|
| | DMO | BWB | NAHEMA | Fokker |
| Technological | | | | X |
| Environmental | | | X | X |
| Development | X | X | X | X |
| Marketing | | | | X |
| Organizational | X | X | X | |
| Inter-organizational | X | X | X | X |

Table 14: Complexities Overview per Case

³⁰ Workshare relates to the private companies, while costshare refers to the founding nations. This table only indicates the cost- and workshare of the cases, thereby purposively ignoring the other participants.

³¹ Administrative costshare, based on intended off-take numbers. PI&P MOU, p12

³² Idem

³³ Production workshare, based on intended off-take numbers. PI&P MOU, p9.

7.1.1 Technological Complexity

Fokker is the only case that was directly influenced by technological complexity. Together with Agusta and Eurocopter, Fokker was responsible for the design, development and production of the helicopter parts. These organizations had to deal with the integration of many different components that together constituted the NH90 helicopter. Furthermore, the introduction of new products and processes was one of the reasons Fokker was interested in the project, but it also introduced ambiguity that had to be dealt with. The theoretical chapter of this study already mentioned the development of a new knowledge base that accompanied these processes. It is this technological knowledge base that Fokker obtained, while the other cases, being mere buyers, did not. In short, component integration and technological newness led to a heightened state of complexity for Fokker, but also introduced a knowledgebase to the company.

7.1.2 Environmental Complexity

Environmental complexity, or market complexity, constituted of items such as variability of market standards, the reaction of competitors, and the change in customer needs, contributes to an increased forecasting difficulty. During the start-up of the project, the NH90 partners knew in advance that differences in standards (e.g. aviation law) or changing requirements could harm the efficiency of project management. There was, however, a realistic stance towards this open-ended contracts by the respondents. They stated that they knew things could change and that they had to adapt. Thus, forecasting difficulties resulting in open ended contracts were regarded as 'normal' NPD practice. During the project, NAHEMA had to adapt to the different standards of testing and differences in aviation law of the nations. In addition, the nations changed their requirements during the project. This heightened the degree of environment complexity at NAHEMA and Fokker, the organizations that had to adapt to the changing needs of the costumers. Adding a change of requirements of customers outside the NAHEMA group or adding new costumers with new requirements to this, increased Fokker's environment complexity even more so. This last remark also indicates that Fokker's attention was not only directed towards the NAHEMA and the founding nations, but that its interests also lay elsewhere. Potential new buyers offered an interesting commercial opportunity that could be more profitable than answering the demands of the NAHEMA nations.

7.1.3 Development Complexity

Although all cases were affected by development complexity, it had a severe impact on NAHEMA in particular. Like any NPD project, many decisions needed to be taken, by every organization, within the NH90 project. What suppliers to choose, what new product to integrate, where or how to test the product, or how to adapt the aircraft to fit national aviation law, to name only a few. To a certain extent, these complexities were reduced since many of these questions were answered in the MOU. Agreements on how to use testing facilities or how to deal with supply chain issues, for instance, were integrated in the MoU documents. Nevertheless, many issues emerged during the project. This is normal state of affairs in new product development projects. What happened during these processes was that NAHEMA did not have enough mandate to decide for all four nations. NAHEMA had to consult them and they on their turn had to consult their stakeholders. This is where organizational complexities come into play. Each case entailed different stakeholders with different interests. This reduces the room of the consecutive actors in which they can act freely. The BWB, DMO, and Fokker can be considered 'end-state' actors in that perspective, because they find themselves at the end (or the beginning) of the formal decision making processes. NAHEMA, on the other hand, had to reconcile the different interests and goals of the nations. This should lead to an integrated offer to NHI. If NHI did not comply with this offer, NAHEMA had to consult the nations and the process started all over again. The combination of development complexity and organizational complexity led to uncertainty, although the level of complexity was limited by formal agreements that regulated for instance supply chain alterations and the use of testing facilities.

7.1.4 Marketing Complexity

Marketing complexity refers to unfamiliarity with a new market when a new product is developed or to unfamiliarity with the response of an existing market to the new product. One of the items that is part of this form of complexity is pricing policy and it is especially this item that has played an important role in the NH90 project. The founding nations have invested heavily in the design and development of the NH90. To compensate for this, these nations are allowed to procure the helicopter for a fixed price. Unfortunately for the private actors in this project, design, development, and production processes took longer than foreseen and were therefore more expensive than expected. This means that selling helicopters to the founding nations also became less profitable than expected. A solution

for this problem was sought by looking for new costumers. No fixed prices were agreed with them, which made a more lucrative profit margin possible. This made these new costumers much more interesting than the founding nations, which in its turn led to a situation in which the attention of the NHI consortium was directed away from the BWB, DMO and their partners. In practice this resulted in rescheduling the production of helicopters of these nations in favor of new costumers like Greece and Australia. Sometimes this happened with approval of the founding nations and sometimes without their approval. Paying fines appeared to be more profitable than sticking to the initial production schedule.

7.1.5 Organizational Complexity

The public organizations faced organizational complexities as well. Chapter four offered insight into the political involvement in the project and the workshare agreement is the written proof of that. Politicians of the founding nations wanted to invest in European defense industry, but especially if their own nation's industry was involved in the process. Political attention has been part of NH90 project from the start. Many politicians, ranging from representatives of the house of parliament to ministers and state secretaries of Defense and Economic Affairs, kept an eye on what happened in this project. This meant that the DMO and BWB case included political stakeholders. In addition to these stakeholders, the DMO and BWB incorporated operational units in their processes. These units would actually fly the helicopters and they had the knowledge of helicopter operations. All these stakeholders came with their requirements, ranging from budgetary restraints and operational demands to industrial involvement. It was then up to the DMO and BWB to enclose these requirements in their demands to NAHEMA. From this perspective, it can be stated that the more stakeholders are involved, the more difficult it becomes to freely maneuver during influencing processes with counterparts in the project. Every requirement narrows these movements down to a certain amount. This can be illustrated by a circle in which the outer circle represents the initial requirements and the inner circle the room the actor has left. If an extra stakeholders gets involved, it often has requirements in a specific field of expertise. The first stakeholder, for instance, requires certain operational functionalities, whereas the second stakeholder demands production within a certain area (country, region) or has budgetary constraints. Every stakeholder adds a circle, thereby narrowing down the space left for influencing. This is illustrated in figure 28.

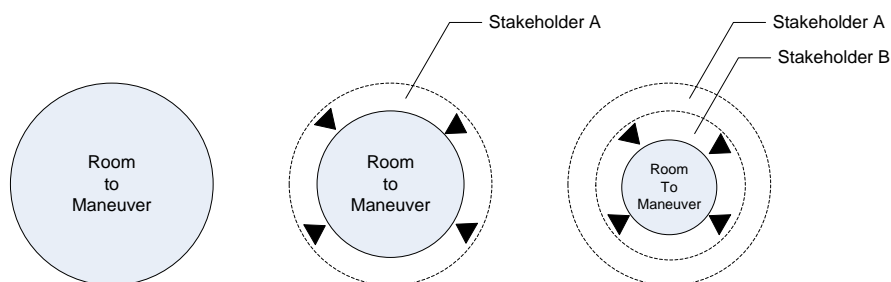


Figure 28: Stakeholder Influence

Also NAHEMA suffered from organizational complexity, although this was not as much related to the variety of stakeholders as to its stakeholders' own organizational complexity. The Netherlands, France, Germany, and Italy, each with their own respective stakeholders, handed over their requirements to NAHEMA. It was then up to NAHEMA to find compromises. However, every time they came with a solution that was beyond their mandate, the nations had to consult their own stakeholders. One can imagine this was a rather time consuming process. The mandate, including the accompanying decision making authority, was therefore mentioned by NAHEMA respondents as too limited to fulfill their tasks.

A difference between the DMO and BWB case was the relation between state politics and industry. While Dutch politicians from the Defense Department kept their industry fencing for their own, their German counterparts maintained a stronger connection between the project and industrial workshare. It needs to be stated that the ministry of economic affairs in the Netherlands was focused on the project for that same reason, but respondents from that ministry were not incorporated in this study. Reports of the house of representatives did however reveal the interest of the ministry of economic affairs. Although organizational complexities influenced both cases, the dynamics within them were different, because of the different attitude towards their industry. In addition, the German public agencies also had the option to move their attention away from collaborative activities with their public partners towards 'national contracts' with Eurocopter Germany. This is mostly due to the fact that Eurocopter Germany had the ability to fulfill the requirements demanded by their public customers. Fokkers' abilities in that perspective were more limited, thereby limiting the options for the Dutch public agencies as well. These latter organizations still could opt for foreign nations' industries to realize their demands, but this measure would not be in line with their transitive goals of staying within the set of (budgetary) constraints and the (managerial) goal to increase Dutch employment.

Fokker was less affected by organizational complexity. It made the components of the helicopter at business units that executed their work assignments in normal production processes. Fokker responded to cross-functional cooperation and integration by introducing the IPO. The integration of new components and the accompanying difficulties therefore remain for the most part in the inter-organizational complexity area.

7.1.6 Inter-Organizational Complexity

Inter-organizational complexities were something all four cases had to endure. This also makes sense, because the project was erected to combine buyers and manufacturers. This induced inter-organizational complexities. This specific form of complexity entails interdependency problems, a variety of actors with different roles and backgrounds, and different ways of formalizing decision making processes (Kim et al., 2003). Especially the interdependency issue had an enormous impact on the actors. The founding nations, in their role of buyers, represented the financial contribution for the program, while the private actors, including Fokker, were responsible for the design, development, and production processes. This dependency resulted in a 'mutual hostage' situation: the public agencies had to invest tax money to buy a product that they were unable to produce by themselves, while the companies could not produce a state-of-the-art helicopter without the investments of the founding nations. This in itself should not need to result in a problem if the program would develop as planned. However, like many other new product development projects, unexpected issues emerged. When this happened, threatening to postpone payments by the nations could result in a negative cash flow of the private companies, which could make things even worse. On the other hand, countries depended on the consortium because they did not have alternative suppliers and hence could not make a credible threat to procure helicopters elsewhere. Options within the defense helicopter market, however, were limited, especially for this particular kind and class of helicopter. Moreover, the nations were committed to the project by formal agreements like the Memoranda of Understanding and various contracts. Leaving the project would result in loss of investment and huge penalties.

These agreements, the MoU's and the ICA, represent another characteristic of the inter-organizational complexity. Interdependency between partners within complex projects always result to some extent in uncertainties and that is something organizations try to avoid or at least try to control or diminish (Weitz et al., 2000). Organizations are trying to reduce uncertainties by using devices as ex ante contracts, penalty clauses and other

formal agreements (Das et al., 2000). This is also what happened in the NH90 program by signing MoU's and the ICA. These agreements state the formal decision making process, the various levels of authority (SC, JEC, etc), and the principle of unanimity, to name a few. The degree of formality, as part of the inter-organizational complexity, is written down in these papers.

Workshare agreements were also part of the MoU. These workshare agreements stated the fixed share of work to be done by the four companies from the respective nations. Closing contracts with other companies would result in penalties. Thus, options outside the project were limited in number and signing contracts with external companies would also be penalized. This limited the nations in their options when the cooperation with the companies did not unfold as satisfactory as planned. In short, due to different roles and backgrounds (public buyer and private suppliers), interdependency issues contributed to a higher level of uncertainty. The partners tried to diminish this by formal agreements which led to a higher level of formality. This led to a hostage situation (formalization in combination with dependency, limited other options, and penalty clauses) with an 'elastic contracting mechanism' (Williamson, 1991), (formal agreements left the actors the opportunity to influence each other because they were open ended and multi-interpretable). Chapter four portrayed the incomplete nature of the contracts, thereby revealing the room to maneuver for the partners involved. In conclusion, all four cases endured inter-organizational complexities which they tried to solve cooperatively. The result, however, chained them together, but could not prevent them from influencing each other during the project.

In sum, complexities that normally go together with new product development projects did also affect the NH90 project and its actors. Uncertainties that accompany these complexities were partly solved by Memoranda of Understanding, the intercompany agreement, and many contracts. The organizations tried to diminish the level of uncertainty by raising the level of formality. Especially inter-organizational complexities had a major impact on this process. The actors were linked to each other by an institutional framework from which they derived certain means as well, as the findings suggest. It is a framework that constitutes the formal power balance between the actors by stating workshare agreements, contracts, and supply chains, but also the formal decision making processes and platforms. Besides this, Fokker accomplished to lower their organizational complexity by restructuring their organization and to strengthen their soft power resources by increasing their knowledge base. It must be said that this is only true in relation towards the public partners, as the other private partners also increased their knowledge base. DMO and BWB were constrained in their activities by their stakeholders, whereas they were the stakeholders themselves when turning the focus to NAHEMA.

7.2 Goals

A first interesting finding with reference to organizational goals is the emphasis on reflexive goals at the political level of the DMO. It was ‘image’ or ‘reputation’ management that made the Dutch participate in the NH90 program. This notion implies the absence of an initial set of requirements and the accompanying set of constraints of a PMT-model. Participating in an international program came first, product requirements followed. Joining the NH90 program was clearly initiated by politico-economical motives. From that perspective, it is fascinating to notice that the reflexive goals at the political level, even in their own eyes, did not align with the transitive goals at the managerial and operational level: “That we entered the program was a political decision. If you would have left that decision to the armed forces, they would never have joined the NH90 project” (D2). Figure 29 shows this transition process from all cases.

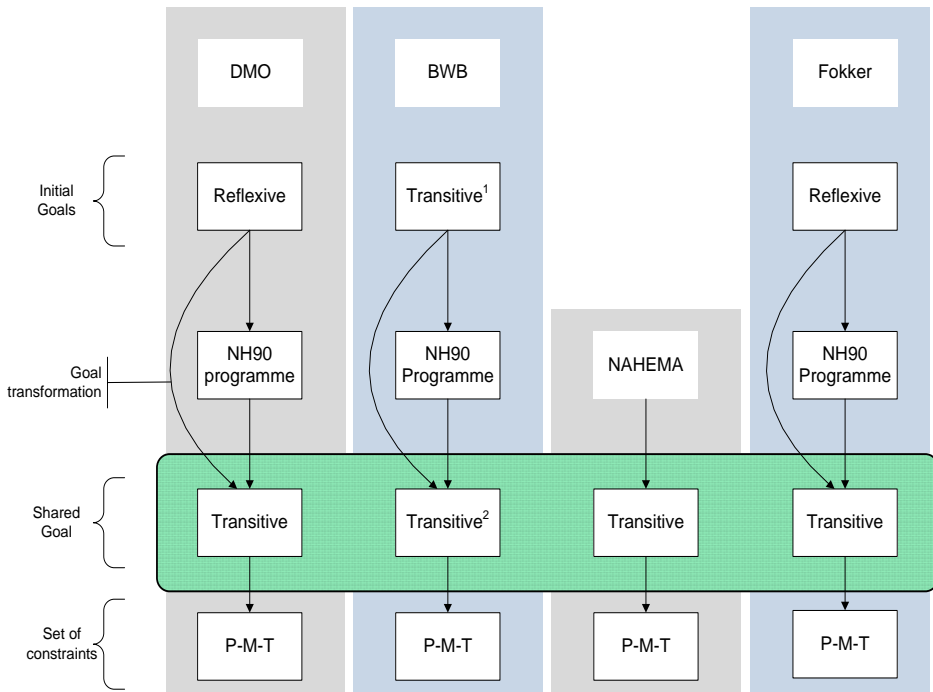


Figure 29: Goal Transformation

This figure illustrates the different initial motives of the four cases. Continuing the DMO description, the reflexive intent of the DMO resulted in the participation of the NH90 program. Participating in itself was not the ‘ultimate’ goal, but, to follow Mohr (1973), a

‘proximate’ goal. The reputation of being an active player and performing a lead role in the realm of European defense policy was what made the Dutch enter the program. This program did fit their needs on an operational level due to the phasing out of their Lynx helicopter. By entering the project, the reflexive goal of reputation management transformed into the transitive goal of ‘getting the best helicopter at the best possible conditions’. These conditions were translated into the actual set of constraints. A nuance should be added to figure 29. The founding nations agreed upon a certain level of consistency of their requirements referring to the helicopter. It is this agreement upon which the initial economies of scale were based. Figure 29 might give the impression that the shared goal of building the helicopter, including its requirements, originated after the program set-up. This is not entirely the case. The figure is a mere illustration of the origin of the program. The different goals of the respective actors were aligned enough to initiate the program, which in its turn initiated a detailed composition of a set of requirements for the helicopter. DMO, BWB, and Fokker existed before the set-up of the program, each having their own motivation for joining the program. NAHEMA, however, was established especially to fulfill the demands of the founding nations. This explains its position in figure 29.

Figure 29 also shows a transformation from the BWB transitive goal into another transitive goal. One that was similar to that of the Dutch. However, there is a large difference in this particular transformation process. The initial, transitive goals of ‘employment’ and ‘competitive position’ (transitive¹) could be aligned more easily with the transitive goal of ‘getting the best helicopter’(transitive²), because of the German socio-economical resource of ‘technology and machinery’. In other words: there is a direct link between the politico-economical goal of employment and socio-economical resources, e.g. the German helicopter industry. This transition into a transitive goal was apparently more difficult for the DMO, because there is no direct link between ‘reputation’ and the helicopter. The NH90 was merely ‘an’ option, not ‘the’ option. Even more so, this product was not what the operational forces had in mind. Discrepancy between reflexive and transitive goals resulted in joining a project in which the DMO had less socio-economical resources than the other partners (i.e. Germany, France, and Italy). Interesting to notice is that from this perspective the respective companies are not only the private partners in the NH90 program, but also become socio-economic resources of the public partners. Vice versa, strong relations with their nations’ political level, especially when it is a major shareholder, increases the companies’ political capital.

Turning the attention to NAHEMA, the findings made apparent that its main objective is to get the best helicopter possible at the best possible conditions. This is rather obvious, as NAHEMA was constituted to promote the founding nations’ interests. Therefore, there is

no transition in goals. Fokker, on the other hand, is a private company with stakeholders that are mainly interested in the profitability of Fokker's activities. The shared intent of the organizational apex therefore is solely reflexive in nature. Fokker respondents often replied that they were concerned with efficient project management, which is a transitive goal. However, their ultimate goal appeared to be making profit. "Presumably this is what industry spokesmen mean when they say that the goal of business is not profit but efficient production of goods and services" (Simon, 1964: 6). Both the respondent's reply and Simon's quote illustrate the coexistence and close link of reflexive and transitive goals. The orientation towards the actual product is most profound at the operational level, at the IPO, at Fokker. Similar to the DMO and BWB operational levels, it is at this level at which most engineers are working. The operational levels at these three cases are all dedicated towards the product, as is portrayed in chapter six. The findings also indicate a stronger orientation towards the 'money' constraint at the operational level at Fokker. Respondents at Fokker, throughout the organization, have a shared concern about money, budgets, and profit. Simon perfectly expressed what the respondents at Fokker illustrated during the interviews:

"For example, "profit" may not enter directly into the decision making of most members of a business organization. Again, this does not mean that it is improper or meaningless to regard profit as a principal goal of the business. It simply means that the decision making mechanism is a loosely coupled system in which the profit constraint is only one among a number of constraints and enters into most subsystems only in indirect ways. It would be both legitimate and realistic to describe most business firms as directed toward profit making – subject to a number of side constraints – operating through a network of decision-making processes that introduces many gross approximations into the search for profitable courses of action." (Simon, 1964: 21)

This seems to happen at Fokker. However, where Simon speaks of 'indirect ways', the profit constraint was expressed explicitly, at every organizational level at Fokker. Referring to Mohr, this makes Fokker rather strong in reflexive intent, or as he puts it, 'institutionally' strong (Mohr, 1973).

Differences between the DMO and the BWB at the managerial and operational levels are limited. Collective goals were aimed at the same transitive goals in both cases at all levels. Interesting to notice is the transitive goal of employment at the managerial level of the DMO. They had limited means to pursue this goal, because workshare agreements were fixed in the MoU and vendor workshare was initiated by the NHI companies. The set of

requirements at all levels also are almost identical. Respondents at the DMO managerial level were more outspoken in their emphasis on time and money requirements than their German counterparts. This lack of emphasis by BWB on time and money, however, does not exclude a fair amount of interest to these specific indicators. In conclusion, differences between the operational and managerial level mostly come down to an increased emphasis on product constraints at the operational level, while the managerial level emphasized money and time constraints. It should be stressed that the emphasis within the set of constraints to a specific constraint in no way excluded an interest in the other constraints.

7.2.1 Different Goals, Different Logics?

Figure 29 on goal transformation showed that different partners had different goals to pursue. Since this thesis is interested in the means-end frames and the underlying actions directed towards influencing others, it is interesting to know how these differences affect the influencing process. Focusing on the logics of action within the organization, i.e. between the organization layers, different ends seem to have no effect on outward influencing processes *an sich*. That means that organizations that pursue reflexive or transitive goals at the organizational apex may all use the same means and conduct the same actions. This outcome is mostly due to the filtering effect of the transformation that takes place when organizations come together in a project organization. In other words, both reflexive and initial transitive goals were aligned in the transitive goal of building the NH90. The executive bodies of the respective nations and companies then need to pursue this transitive goal. This is a common and well known process in project and alliance literature (de Man, 2004, 2006; Wysocki et al., 2003). Although this process does not include or exclude certain means based on the pursuit of reflexive or transitive goals, it is important at this stage of the project to match political ends with the means at the executive bodies. The DMO case showed that having no socio-economic resources does not prohibit the pursuit of reflexive goals, but that it does put the executive bodies in a backward position in respect to their project partners that do have these means. Even this position does not mean that goals cannot be attained, but it decreases the influencing capabilities of every organizational level.

In addition, there is an iterative process that affects the project. This process is induced by the differences in goals the respective partners pursue. The transformation process that filters the different ends into an overarching project end, has an incredible effect on the project. The stronger this filter is (i.e. the more the ends of the partners are alike), the less

discretionary space is left for the partners. Literature on the ‘fuzzy front end’ of NPD projects already revealed the complexity of end state definition and it is at this filter, or transformation process, when partners have to commit to their common goal of economies of scale (Kim et al., 2002). At this stage they have to acknowledge that they have to make steps forward together with their partners. However, due to their stakeholders or to being competitors, a shared goal seemed hard to maintain. Budget constraints, compatibility with operational users, no information sharing et cetera all contribute to a complex, iterative process that increases discretionary space. A process that has a negative impact on goal achievement. Most noticeably in terms of budgets and time. It is this process that is portrayed in the overall process in the context of influencing in chapter 5, figure 27.

7.3 Means and Action

Chapter six indicated the means, actions, and ends of the four cases in the NH90 program. This section makes a cross-case analysis of the means and actions explored in the former chapter. The cases are compared in three distinct areas: institutional resources, socio-economic resources, and soft power resources.

Institutional Resources

Institutional resources as means were mentioned by all respondents at all levels in every case. Within the domain of institutional resources, several means were activated. Most important are ‘legal rights’. Actors fell back on contracts, MoU’s, and other agreements when discussions or negotiations did not end in a shared solution. The findings, based on the theoretical underpinnings of this study, indicated that activities like ‘pressure’ and ‘legitimizing’ can be linked to this means. ‘Pressure’, however, was only beneficial if the pressure, by form of demands or threats was backed up by an actual execution of these threats. If this was not the case it appeared to be harmful for the credibility of that particular actor, notwithstanding size, role, or nationality. In addition, contracts could only serve as a means to a certain extent. First, because the contract itself was open-ended and multi-interpretable. Second, if the penalties of a breach of contract were accepted, all means of pressure were lost. This was what happened when public actors tried to enforce contractual agreements and private actors tried to gain more profit by breaking them. A second means within the institutional resources domain was found in the private sector. Veto rights hold a dominant position in the decision making process within the NHI consortium. But these rights also had to be played out carefully. Fokker, being a small actor in this consortium, could not continuously veto decisions. It would harm their

position and it would delay decision making. Fokker chose the 'consensus' option. An option that acknowledged the existence of these problems and that surpassed them by generating shared solutions. Based on the theoretical foundation, Fokker's willingness to modify proposals in order to deal with its partners' concerns and suggestions can be labeled as 'consultation'. The veto rights gave Fokker the position of an 'equal' partner, but in practice these means could only be used to a limited extent. In short, it can be stated that veto rights had a latent presence and offered mostly a ceremonial position. The public organizations dealt with the consensus problem in a different way. DMO and BWB, but also the other founding nations, acknowledged the importance of consensus, bearing in mind that this was the way that would lead them to 'economies of scale'. However, their restricted space to alter product requirements often forced them to seek their solutions elsewhere.

The third means located in the institutional resources domain is linked to formal authority and hierarchical position. It is a resource that is used intensively and by some actors strategically and is therefore an eminent aspect of the influencing process. The presence of several hierarchical layers within the partner organizations offered the actors the ability to escalate their problems to higher levels when their respective goals could not be aligned. This escalation process was used strategically by Fokker. Fokker kept two different positions in place (that were de facto redundant for their own operational activities), especially to be able to match their partners in the escalation process. They were now able to escalate to higher levels, instead of returning to the meeting rooms with the same person, while their partners introduced higher level executives. In that sense, Fokker actively organized its organizational structure to match these influencing processes. In addition, escalation in itself also became a mean. It turned into a signaling function, indicating 'this is important, we want to solve this issue at a higher level'. It therefore also became a means that could be used as a threat: 'I'll take this to a higher level'. These escalation activities, as part of institutional resources, were used at all organizational levels from which escalation was still possible.

A last means can be attached to the authority domain of institutional resources: mandates. The nations mandated NAHEMA to negotiate on behalf of them. NAHEMA, however, concluded that these mandates were so restricted, that it made them unable to function properly. This finding is interesting from an influencing point of view. The nations did not want to hand over too much authority to NAHEMA because they wanted to be able to influence the project's processes themselves. On the other hand, NAHEMA could not influence the NHI consortium under optimal condition because of the limited mandate. By their lack of confidence in NAHEMA, the nations limited NAHEMA's options when negotiating with NHI. NAHEMA therefore constantly had to return to the nations to

consider every possible option. This expanded the decision making processes considerably, while the ability to influence the project was limited because restricted product requirements made new consensus options difficult. It sometimes led to a separation in the way the nations solved their problems, which in its turn diminished the goal of economies of scale (as part of their set of budgetary set of constraints) the nations initially pursued.

Socio- economic resources

Within the domain of socio-economical resources, it became apparent that the use of financial resources was restricted to the political domain of the public organizations. The use of these resources, however, differed in practice. The BWB chose for an influencing tactic that can be labeled as 'escapism'. Germany has a large industrial complex and with Eurocopter Germany (as part of the Eurocopter concern) an industry that is capable of building complete helicopters (in contrast to parts manufacturer Fokker). When the goal alignment processes at NAHEMA did not result in a preferable outcome for the German BWB, they placed so-called national contracts "to match the German requirements for 100%" (B6). The Dutch on the other hand, lacked the ability to turn to their national industry, the financial means to place other contracts, and the time to wait for other options. This lack of socio-economic resources (technology, machinery, and finances) sometimes forced the DMO to compromise on product requirements in favor of time and money. From that perspective 'consultation' is also applicable here, as it represents 'the willingness of an actor to modify a proposal to deal with the concerns of others'.

The use of 'finances' as socio-economical resources were observed at the German (BWB) and Dutch (DMO) political level. The use of these resources, however, differed considerably. The Dutch and the Germans used their position as buyer to put pressure on their private partners by threatening them to stop their scheduled payments. From that perspective, they withheld their private partners these financial resources (which were in dire need of a constant flow of finances). On the other hand, the BWB bought a considerable number of helicopters and therefore had a larger budget than the DMO. In combination with a tighter relationship with their industry, this offered them the opportunity to look for options that did not involve all the partners of the NHI-NAHEMA consortium. In effect, together with Eurocopter Germany, they pulled back from an all-partners-included, cooperative effort and tried to solve NH90 related negotiations bilaterally. This example stresses the differences between withholding financial resources to others and adding extra financial resources, both with the same objective.

NAHEMA has no socio-economical resources of its own. If it would threat to stop payments, it is only on behalf of the nations, not on behalf of itself. Furthermore, NAHEMA cannot threaten to withdraw from the project as it has no machinery or technology of its own. This is not the case for Fokker, which has technology and machinery of its own. Unfortunately, so do the private partners within the NHI consortium. Fokker's resources are in that sense not unique. Fokker's withdrawal would certainly harm the project, but with only six percent of the workshare with parts that can also be produced by its partners, it is not a socio-economic resource that was played out strategically by Fokker.

Soft power resources

The final means and activities are found within the soft power resources domain. Especially knowledge and expertise were indicated by the findings to play an important role. The tactic of rational persuasion is found at every level in every case. Within the set of formal constraints as veto rights, contracts and other agreements, logical arguments and factual evidence was often used to persuade others that a proposal or request is viable and likely to result in the attainment of task objectives. Although the use of rational persuasion sounds logical, the input for factual evidence is an effort that was not taken lightly. 'Gathering information', 'being informed', and 'informing' are activities in which most respondents put a lot of effort. It is also an activity that can be put into practice on a structural basis. Examples were presented by the DMO that placed extra boundary spanners at NAHEMA for the sake of extra information and by Fokker, that installed extra 'eyes and ears' at crucial positions at NHI. An interesting finding is the perception of 'public' respondents that expertise was to some extent annihilated by their own human resource management policy. In contrast to the private organizations, military officials at the public agencies rotate between positions every three years in average. This means that after three years somebody new, with no experience, is introduced to the program. This person may or may not have any experience in the field of project management, let alone in the specialized realm of aircraft project management. Although this problem could be resolved by adding civilian personnel to the project team, this pragmatic solution was not observed at the NH90 project team at the DMO. This project team existed of military officers only, with the exception of one contract manager. The German BWB exists of civilians only, but it applied a rotation system similar to the DMO. At Fokker, managers also change between positions, but they mostly stay within the field of project management within the aerospace domain.

Furthermore, to stress the importance of knowledge and expertise, Dutch public officials were often asked to chair meetings or to act as mediators based on their language

proficiency³⁴. This also heightens the possibility to influence meetings, discussions, and negotiations. From an influencing perspective this means that rational persuasion based on knowledge and expertise can be more effective with an HRM policy that takes these considerations into account.

Coalition completes the list of activities that can be linked to soft power resources. Coalition formation appeared to be an activity that is important to all partners. Although especially the smaller actors indicated this to be one of their leading activities, discursive legitimacy (the ability to speak on behalf of others) appeared to be important for all actors. For instance the Netherlands raised its input of interest from 20 helicopters to 120 helicopters after it successfully persuaded Germany to join their case. On the other hand, Germany was now backed by a partner. This raised its representation from 25% to 50% of the founding nations.

An overall picture of means, activities, and ends can be extracted, based on the case findings. Figure 30 shows the links between the power resources and the activities that accompany them. In addition, it shows the goals the organizations pursue.

³⁴ The selection for these positions was not solely based upon language proficiency. Being a small actor, and therefore not a real 'threat' to the other partners, in combination with language proficiency made the Dutch serious candidates for these positions.

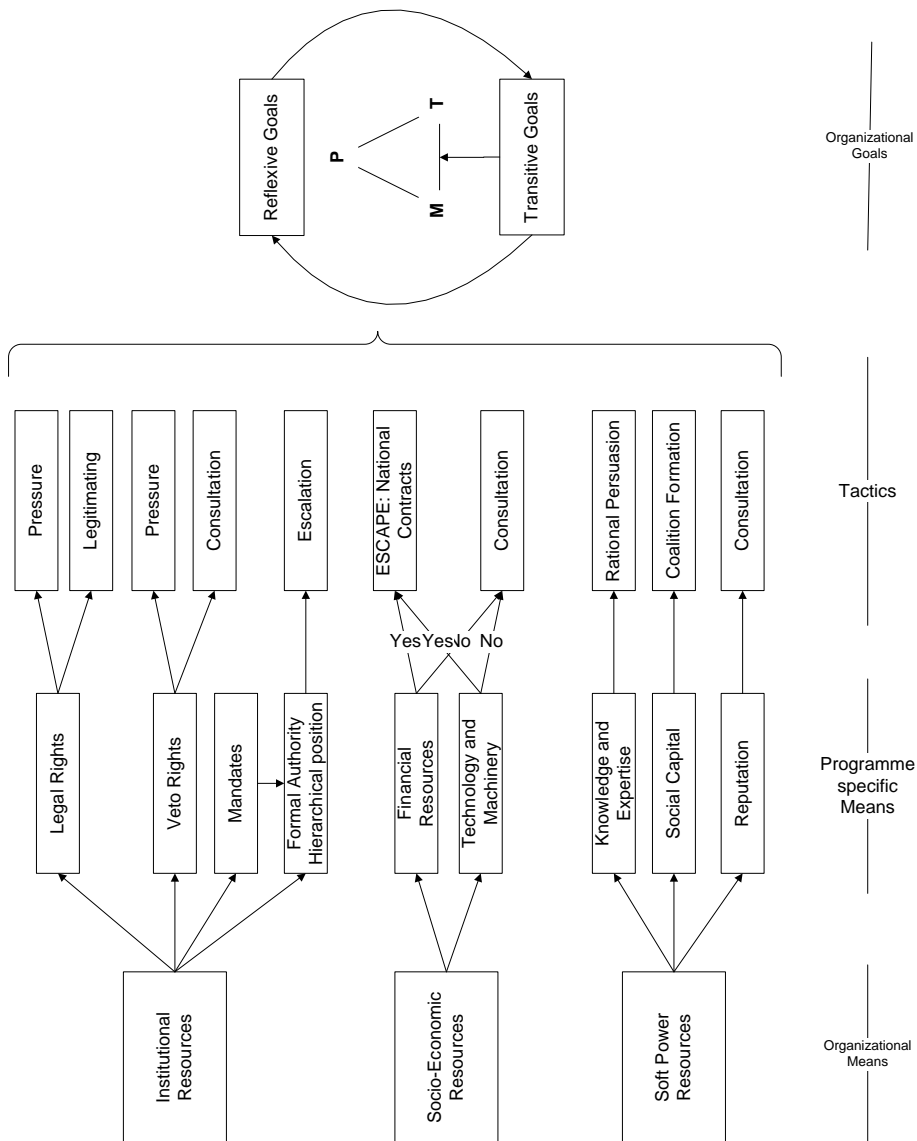


Figure 30: Overview of Means-Ends relations

In figure 30, the relation between activities and goals is represented by the use of an accolade instead of arrows. This means that no direct relation was found between a specific course of action and a specific goal. This finding is in line with Yukl et al., who did not observe direct relations between influencing activities at an individual level and the goals these individuals pursued (Yukl et al., 1995).

7.4 Intra-organizational differences of influencing logics

The separate observation of the different ends, activities, and means of the four cases now brings us to the intra-organizational overview of differences of logics between the organizational layers. It is already widely acknowledged that differences of logics within organizations exist. It is now interesting to notice how these differences affect organizational influencing. If differences in logics of action occur between hierarchical layers, it is important to know how organizations deal with these differences. For this, we turn to Bacharach et al, who stated that exchange between two or more parties³⁵ is only possible if their logics of actions are aligned (Bacharach et al., 1996). Referring to this study, this implies that the means of one actor are not inconsistent with the means or ends of another. In general it can be stated that the ends of the organizational layers, in all cases, are not inconsistent. There are two distinct reasons why this is the case. The first reason refers to the transformation process from the initial goal to the 'project' goal. For example, DMO's initial, reflexive goal was not consistent with the goal of the operational users. In fact, these users initially did not even want the NH90. After the decision was taken to participate in the NH90 program, the political reflexive goal was specified into a transitive goal. The managerial and operational level of the DMO, being a executive body of the ministry of defense, then received the assignment to get the best helicopter possible at optimal conditions. From that respective it is not surprising that the goals at the several layers are consistent.

There is, however, a difference in the emphasis these layers lay upon the content of the set of constraints. This is the second reason why logics are aligned: goals at higher hierarchical levels are complementary to goals at lower organizational levels. The operational levels in all cases were foremost interested in the product requirements. Restricted in their means to alter contractual agreements and limited in their mandates, these levels acted within the boundaries of their set of constraints. Discussions mostly involved product requirement issues that could be settled, at least from a technological point of view. These options nevertheless often demanded an extension of the constraints linked to budgets or time scales. Respondents at the operational level specified that they could indicate solutions that were linked to budget and time constraints, but they were unauthorized to alter them themselves. The technological problem was then translated at a higher hierarchical level into a budget or timeframe problem. At the managerial level, officials could alter the contracts or widen the constraints. Subsequently, the problem was de-escalated and officials at the operational level could then solve their initial, technical

³⁵ With 'parties' or 'actors' this study refers to a hierarchical layer.

problem within a widened mandate. From that perspective, the emphasis within the set of constraints is complementary from one level to another.

The process of escalating is nothing new. What is interesting in this case is that NAHEMA had such a narrow mandate, that officials had a hard task to negotiate with NHI. Their set of constraints were strict and the nations did not allow NAHEMA to push the boundaries of their mandated 'magical triangle' (set of PMT constraints). The nations wanted to stay involved in NAHEMA's influencing processes towards NHI. However, NAHEMA's set of constraints was strict, while their means to influence (mandate and discursive legitimacy) were limited. This appeared to be counterproductive for establishing an efficient administrative agency like NAHEMA, which initially was the reason to set up NAHEMA. In short, the nations' desired influence in the process decreased the influencing abilities of their representing agency.

With reference to differences of logics of action, it should be stated that the reflexive goals at the political level of the DMO have a serious impact on the means at lower levels. The ambition to join an international program like the NH90 was transformed into a transitive goal at the management level. Focusing on the findings of power resources revealed that these transitive goals were not accompanied with socio-economic resources. The DMO lacked sufficient financial means to 'buy escapes' and although its relation with Fokker was good, Fokker was not the stronghold in the NHI consortium that could deliver the DMO a strong power base. Compared to their German, French, and Italian counterparts, this left the DMO behind in power resources. This means that goals at the political level may not be inconsistent with means of lower levels and therefore be aligned, but they certainly can decrease the latter's power resources.

7.5 The Influencing Processes

Figure 30 is a theoretical representation of means-end frames. It suggests a straight line starting at means, via activities, ending at the ends. The means offer activities a power base and, in addition, the activities need to achieve predestined goals. As the findings suggest, however, the ends that need to be achieved are indicated first. Next, the means and activities are used to achieve these goals. Based on the changing requirements rooted in political, technical, or operational change, the ends the respective organizations pursue, also change over time. This results in an iterative circle displayed in figure 31.

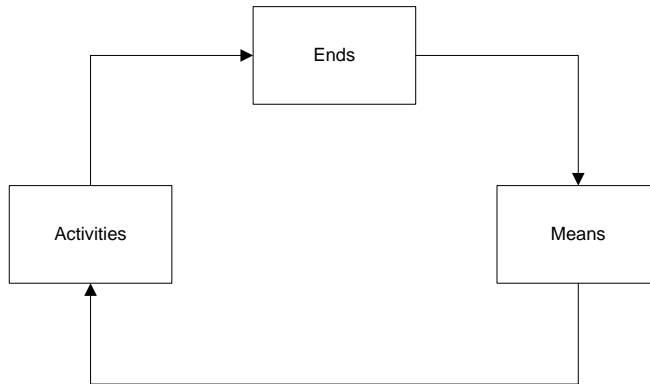


Figure 31: Means-Ends Circle

This figure shows that ends influence the means, means influence the activities, and the activities influence goal achievement. Referring to the findings of this study, reflexive and transitive goals are expressed at the political level. One can think of ‘increased employment’ or ‘play a leading role in the international security domain’. The initial goal assignment results in a management construction that entails more or less trust. In case of the NH90 program it entailed a great deal of distrust. This is managed by institutional means like contracts, MoU’s, ICA’s, and other formal agreements. These agreements are based on socio-economic resources: every nation has the right to involve its own industry. The larger the number of helicopters to be procured, the larger the industrial workshare of that particular nation.

Due to the specific nature of the NH90 program as a new product development project, not everything can be set in stone in advance. This leaves room for influencing, as was depicted in chapter five. The large part of the influencing framework is constituted of socio-economic and institutional resources, with soft power resources filling in the spaces left. Ellersiek and Kenis’ study already mentioned the rather poor position of soft power resources in contrast the other resources (Ellersiek et al., 2007). The findings of this study also depict institutional and socio-economic as the most powerful resources. Nevertheless, due to the relations of soft power resources like rational persuasion and social and political capital with institutional and socio-economic resources, these means may not be as marginal as depicted in other studies and should therefore not be underestimated. Having strong socio-economic resources, and with that strong institutional resources, provided other nations with a head start.

The process of influencing can be divided in three distinct phases. Figure 32 is a simplified representation of these influencing phases.

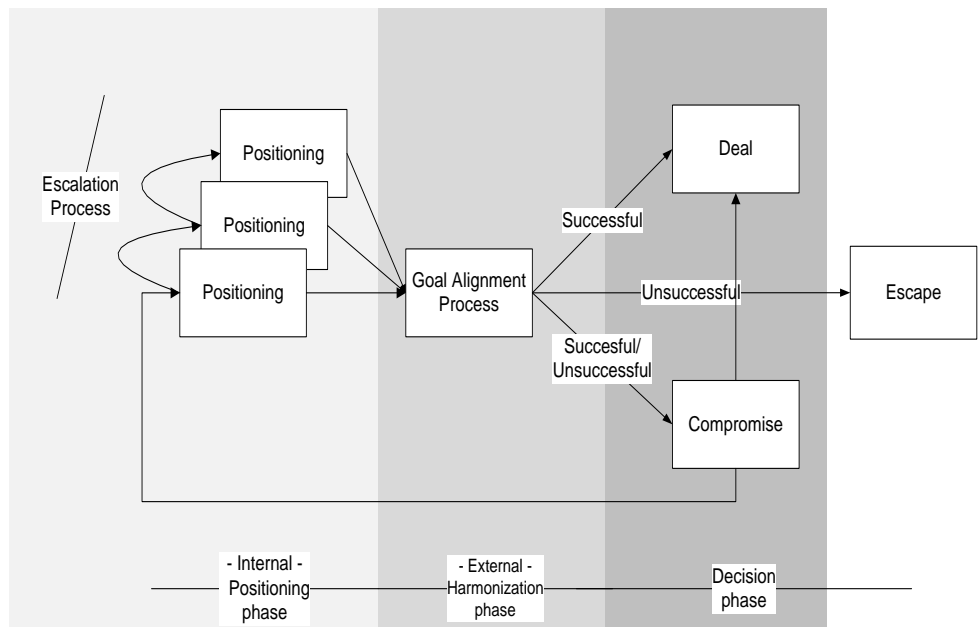


Figure 32: Influencing Phases

The first phase can be labeled as the positioning phase. It is in this phase the stakeholders contribute to the process by stating their demands, thereby framing the Product-Time-Money constraints.

This internal positioning phase is followed by the actual inter-organizational goal alignment process. It was labeled by one of the respondents as the ‘harmonization phase’. The partners come together to scan each other’s boundaries and to see if their requirements match. The outcome of this process can be threefold. If their respective goals are aligned, the partners close a deal. This may be an agreement, a new or adapted contract, or even the payments of fines. The harmonization phase may also be successful, but with a different outcome: compromise. However, talking about compromises often entails the involvement of higher level officials. Officials that have the authority to adapt the P-M-T set. This is the start of the escalation process. Due to the emphasis on product requirements, the escalation process can be labeled as a translation process. Engineers at the operational level often succeed in overcoming technical problems. This regularly

involves violating financial or planning constraints. If actors at this level do not succeed in staying within these boundaries, the issue is escalated. The findings repeatedly portrayed a 'distance' of higher level officials to technical issues. Mostly due to the fact these officials often simply lack technical knowledge to have a substantial influence on the matter. This means the issue is translated from a technical problem into a financial or planning issue. If necessary, stakeholders again come into play to assess whether or not requirements need to be adapted. This positioning phase is followed by the harmonization phase where it has the same options as lower level officials. If a new compromise is not accepted the process will repeat itself, until a solution is found. This iterative process, if successful, will finally result in a deal, hence the arrow. The findings indicated the escalation process as a significant part of the influencing process. If an organization wants to follow the escalation processes of their partners, it appeared important to install symmetrical escalation structures.

There is one other option: the 'escape'. It is an option that appeared not to be a first choice, but it is nevertheless a decision that can be taken if the actor possesses sufficient socio-economical resources. This decision is mostly taken from managerial level and up. It is labeled 'escape' as the solution is found outside the atmosphere of cooperative partnership and therefore leaves the influencing process that accompanies these partnerships.

7.6 Conclusion: The Four Cases and Influencing Logics

The cross case analysis revealed interesting differences between the cases. Most noticeable are differences in ends the four cases pursued. However, the transformation process that ended the fuzzy front end (at least from a theoretical point of view) and started the NH90 program, merged all ends into a shared, overarching, transitive goal: building the NH90. The findings nevertheless portrayed unique characteristics that typifies the four cases.

A distinct difference in ends is most prominent in the DMO case. The pursuit of reflexive goals at the political level, left lower level officials with a lack of socio-economic resources, thereby falling behind in influencing power in relation to their counterparts. DMO officials appeared to utilize soft power resources at the individual basis (language proficiency for instance) and on a structural basis (boundary spanners). The perception on the use of contracts was divergent throughout the organization.

In the BWB case, the close link of the public agency to its industrial complex can be indicated as distinct in respect to the other cases. It provided the BWB with powerful

socio-economic and institutional resources. BWB officials utilized all sorts of activities, including the 'escape'. Similar to the DMO, the BWB does not have a HRM policy to contain knowledge and expertise.

NAHEMA played a complex role in the project as the representative of the founding nations. Nahema respondents complained about a lack of trust and, consequently, a lack of mandate. Due to its small size, differences in logics are only marginal.

Fokker, as the only private case in this study, conducted a pro-active influencing strategy. The organization as a whole can be labeled as institutionally strong. Furthermore, it relied heavily on soft power resources with a HRM policy directed towards the containment of knowledge and expertise, installing boundary spanners at important positions at NHI, and restructuring its organization to mirror the escalation options of its counterparts. Although it tried to use its 'Calimero' position, it acknowledged its lack of influencing power, being a relative small actor.

CHAPTER EIGHT

DISCUSSION AND CONCLUSION

Chapter 8 Summary, Discussion, and Conclusion

8.1 Introduction

New product development projects are instances of cooperative efforts between many actors (Ngai, Jin, & Liang, 2008). These actors often have diverse backgrounds and competing interests. NPD projects are known for their inability to describe precise future outcomes, which makes it hard to manage these projects by formal agreements. This environment leaves participants of NPD projects room to maneuver while pursuing their self interests. Literature on influencing has predominantly been focused on intra-organizational influencing (e.g.: Falbe et al., 1992; Yukl et al., 1995). Literature that is focused on outward influencing leaves aside the actual practice of influencing, let alone the intra-organizational practices of outward influencing (Pfeffer, 1992; Pfeffer et al., 2003). Despite the growing number of NPD projects and the significance of influencing in these complex environments, the scholarly literature on organizational, outward influencing is yet to develop. This study, therefore, set out to explore outward influencing. Specifically, the study focused on the link between the NPD context and organizational, outward influencing and on the intra-organizational logics of action. **The goal of this study is to acquire an in-depth understanding of how four organizations, involved in the NH90 NPD project, influence their project partners.** Conceptual models on context and logics of influencing should provide insight in outward influencing, thereby informing managerial practice.

Comparison of the cases reveals similarities and some dissimilarities between and across the cases. The cross-case analysis also reveals patterns of logics of action within the cases. Furthermore, the analysis sheds light on the effect context has on influencing logics. The purpose of this final chapter is to discuss the main findings of this study and to connect these findings with the initial objective of this inquiry. The chapter also describes the implications for theory and practice. In addition, the limitations and directions for further research are discussed.

Research approach

With an emphasis on the analysis of practice, the study employed an interpretive research approach with an inductive logic and utilized a multiple case study design. The empirical enquiry included four in-depth case studies within a single context. A single context was chosen, because “the more contexts a study investigates, the less contextual insight it can

communicate” (Dyer et al., 1991: 614). For this study, contextual factors played an eminent role since a complex phenomenon like influencing was examined in its real-life context. A context that affects influencing behavior as much as it is affected by influencing itself. The single context decision resulted in a project description (chapter four) that offers the reader an understanding of the context in which the four cases acted. Based on sensitizing concepts provided by existing literature on topics of influencing, NPD projects, and logics of action, data was analyzed and coded at first and second level. This resulted in the findings as described in chapters five to seven. The following section will discuss these findings in more detail.

8.2 Discussion of the main findings

The theoretical contribution of this study is clustered around three main items: the intersection of intra-organizational and inter-organizational processes, the alignment between hierarchical layers, and the role of context. The following sections will elaborate on these three items. To easily recapture the findings that contribute to the respective conclusions, the corresponding paragraphs are denoted between brackets.

8.2.1 Intersection of intra- and inter-organizational processes

Within the domain of influencing, most studies have been conducted with an intra-organizational focus and most often with the individual as the level of analysis (Falbe et al., 1992; Gupta et al., 1999; Keys et al., 1982; Yukl et al., 1995). When the focus shifted towards the organization as level of analysis, the organization is depicted as a whole or, to stay in terms of social network analysis, as a node (Clegg, Courpasson, & Philips, 2006; Pfeffer et al., 2003). However, almost all respondents in this study pointed out that escalating issues was often used to involve higher level officials, not only to resolve problems, but also to influence project partners (§6.2.3, §6.3.3, §6.4.3, and §6.5.3). Furthermore, the tactical and strategic use of means and the shared attainment of goals throughout the organization portray a multilevel scope of organizational influencing (§7.3). The findings of this study, therefore, indicate that for a purposeful investigation of organizational influencing, the ‘whole organization’, in contrast to the ‘organization as whole’, is more appropriate as level of analysis.

To focus on the intersection of intra- and inter-organizational influencing, the attention first shifts towards the findings that relate to inter-organizational influencing, before turning to the intra-organizational findings of this study.

Inter-organizational Orientation: Influencing in Networks

The NH90 program is a network comprised of autonomous organizations and, thus, in essence a cooperative endeavor. Although its participants can still reflect opportunistic behavior, from a network point of view it is a goal oriented network, with the transitive goal of building the NH90 as ultimate goal. The public partners acknowledged the theoretical assumption that “some form of governance is necessary to ensure that participants engage in collective and mutually supportive action, that conflict is addressed, and that network resources are acquired and utilized efficiently and effectively” (Provan & Kenis, 2008: 231). For this, the founding nations set up NAHEMA (§4.3). From an influencing point of view, within a network context, NAHEMA proved to be an interesting case. With NAHEMA, the NH90 program was externally governed through mandate and by the members themselves (§4.2.3). Building on the study of Provan and Kenis, three distinct forms of network governance can be indicated: participant-governed networks, lead-nation networks, and network administrative organizations (NAO’s) (Provan et al., 2008). NAHEMA resembles the NAO. A NAO is ‘a separate administrative entity set up specifically to govern the network and its activities. [...] The network is externally governed [...] either through mandate or by the members themselves, for the exclusive purpose of network governance’ (Provan et al., 2008: 236).

Provan and Kenis’ definition of a NAO states that a NAO is externally governed either through mandate or by the members themselves. NAHEMA, as a NAO, was governed by both and the findings of this study showed that this hampered effective influencing. First because its mandate lacked sufficient authority to effectively conduct influencing activities (§6.4.1) and second because the nations wanted to control the influencing activities themselves (§6.4.3). This latter observation indicates a shift towards a shared or participant governed network. Consequently, NAHEMA’s position was left ‘stuck in the middle’ between the both, resulting in a somewhat powerless organization that was nevertheless held accountable for managing network effectiveness³⁶.

This study balances on the intersection of intra-organizational and inter-organizational processes of organizations acting within networks. Although the initial focus is on organizations, this study emphasizes the organizational context. From that perspective, the outcomes of network activities is closely related to the outcome of combined organizational activities. This study therefore agrees with Provan and Kenis’ statement that “researchers will need to examine whole networks in greater depth [...]” and that

³⁶ Network effectiveness is defined as the attainment of positive network level outcomes that could not normally be achieved by individual organizational participants acting independently (Provan and Kenis, 2008).

researchers need to broaden their focus, “moving away from describing network activities and behaviors” (Provan et al., 2008: 248). However, this study shows that to observe network effectiveness, the analysis of a network administrative organization is of utmost importance. It is thereby recognizing the NAO as an organization in its own right, with its influencing logics, its own inter-organizational relations, and its own, unique role in the network.

Building on the notion of inter-organizational cooperation, the findings of this study showed that network level goal consensus played an eminent role in the NH90 program (§7.2). The transformation of different goals into a single, shared goal of building the NH90, prompted the set up of the program in the early 1990's. However, due to the uncertain nature of NPD projects in general and the experienced changes in NH90 customer needs in particular, goals deviated year by year. The findings indicated that the ‘organizational lock-in’, that is standardization towards operational users instead of standardization towards each other, had a negative effect on goal consensus, network effectiveness, and also on goal achievement of the individual organizations.

Referring to the framework of cross-cultural psychologist John Berry, the founding nations started the program with adaptation and collective standardization in mind, resembling Berry's *assimilation strategy* (Berry, 2004). However, different product requirements resulted in ‘micro alterations’ with problems too little to confront on a macro scale. This step-by-step shift away from assimilation towards *separation* had the advantage of ‘100% achievement on product requirements’, as stated by one of the respondents, but it also had its down sides. With reference to influencing and coalition building, separation decreases the opportunity of the partners to show one face, thereby decreasing influencing power towards their counterparts. Furthermore, separation leads to a loss of economies of scale, thereby also decreasing goal achievement in terms of budget constraints. In complex configurations, like the NH90 program, an *integration approach* is suggested (Soeters & Tresch, 2010). However, the decision to establish a network administration organization like NAHEMA, precluded the emergence of an official dominant actor, which is essential for an integration strategy.

This study shows that an initial intent towards a favored strategy can evolve or degenerate during the process, leaving the partners, again, stuck in the middle between three different strategies. This study contributes to the studies of Berry (2004), Soeters and Tresch (2010), and to Provan and Kenis' 2008 study, as it also shows that project partners need to evaluate both their strategies and roles during the project since they endure different kinds of changes.

8.2.2 *Intra-organizational Orientation: Logics of Influencing*

As literature on NPD projects revealed, new product development projects are replete with uncertainty. The NH90 program is no exception in that respect. Changing environments and differences of interest imposed challenges on the organizations that participated in the project. This study indicated that conducting influencing activities is inevitable for an NPD project participant, if it wants to achieve its initial, transitive goals. The emphasis on *transitive* goals is not without reason. Findings do not suggest a necessary link between reflexive goals and influencing activities (§7.2). Reflexive goals are orientated 'inwards' and actors that pursue these goals, therefore, do not necessarily need to promote their interests towards their partners. Transitive goals, on the other hand, are specified in terms of product, time, and money constraints and often imposed by others (clients, operational users, et cetera). By their very nature, transitive goals require influencing activities to be realized.

To fulfill their reflexive goals, organizations almost always have to achieve transitive goals. In that respect, Mohr speaks of the 'coexistence of reflexive and transitive goals' (Mohr, 1973). Projects can be regarded as the transitive translation of both transitive and reflexive goals that initially spurred organizations to take action. For the analysis of influencing within NPD projects with multiple partners, the focus can therefore be directed towards transitive goals.

In chapter 7, figure 29 (§7.2) portrayed the transformation of both reflexive and transitive goals into an overarching, shared goal that is transitive in nature. This goal was specified into a set of specific requirements, described in terms of budget, timescale, and product requirements. The initial decision to participate in complex NPD projects is taken at a political level. The goal transformation process starts at that same level, when actually entering the project requires pragmatic guidelines for effective and efficient project management. Consequently, levels lower in the organizational hierarchy have to execute this specified set of constraints. This facilitates intra-organizational goal alignment processes. A consistent distinction between organizational layers and their emphasis to specific requirements within their set of constraints adds to an enhanced alignment of logics within an organization (§7.4). The findings of this study therefore indicate that the transformation of initial reflexive and transitive goals into a specified set of requirements has a positive effect on the alignment of logics between organizational layers.

This particular finding is the outcome of the translation of an initial intent into a pragmatic execution of that intent. The project is (often) the organizational form in which resources are allocated to perform that task (§7.2.1). The finding offers an addition to Bacharach et

al.'s findings. They concluded that alignment was prompted by the search for consistency. In that perspective, their findings '*provided a prime psychological motivator driving the micro-political processes of transformation*' (Bacharach et al., 1996: 503). The NH90 case shows that next to psychological motivators, there may be a second motivator: the focus on organizational goals and structures provides an *organizational* motivator driving micro-political processes of transformation.

Influencing Alignment between Organizational Layers

Although the organizational transformation process portrayed in figure 29 (§7.2) is beneficial for the alignment of logics, it is not necessarily beneficial for the effectiveness of activities at lower levels. The goals at the political level of the DMO were not inconsistent with means at lower levels of that same organization (§6.2.4). However, the political intent to participate in international programs like the NH90, without an industrial footprint in that particular area, left lower hierarchical levels without a strong socio-economic powerbase (§6.2.2 and §6.2.3). Means and ends at different hierarchical layers are therefore not necessarily consistent, even when goals are aligned. This study concludes that the intra-organizational alignment of logics between hierarchical layers is a necessary, but not sufficient condition for effective organizational influencing. This notion on the relationships between hierarchical layers within a organization is important, because "an actor's [an organizational layer] outcomes are contingent not just on his or her own behavior but also on what other actors do simultaneously or in response to the actor's behavior" (Bacharach et al., 1980). This particular finding contributes to theory building in the realm of logics of action, as literature in this domain strongly builds on the notion of dissonance reduction between two or more actors (Bacharach et al., 1996). The case findings, however, indicate that the reduction of dissonance alone is not enough for effective influencing.

Focusing more on the particular means of organizations, the findings show that organizations, at each hierarchical level, combine the respective means they have at their disposal. This is in line with the findings of earlier studies, at the individual level of analysis, that show that individuals also combine their influencing means and tactics (Case, Dosier, Murkinson, & Keys, 1988; Kipnis et al., 1984; Yukl et al., 1991; Yukl et al., 1995). This study thereby expands earlier findings at the individual level towards the organizational level.

Furthermore, this study agrees with Ellersiek and Kenis on their finding that soft power resources are limited and context-dependent (Ellersiek et al., 2007). However, the findings have also indicated that the effective use of soft power sources enables actors to include

institutional and socio-economical resources of others, thereby increasing their own, initially weak, power base.

8.2.3 *Influencing in a NPD Context*

One of the most striking features of new product development is its association with 'speed'. NPD projects are related to 'velocity', 'turbulence', and 'time-to-market' (Moehrle et al., 2008), to 'rapid rate of technological change' and to 'shortened product life cycles' (Handfield, Ragatz, Petersen, & Monczka, 1999), and to 'time efficiency' and being 'on schedule' (Cooper & Kleinschmidt, 1995). It is then most striking to observe a project that lasts over two decades and is (consequently?) still behind schedule. One could then wonder whether the NH90 program is indeed a NPD program as it is hard to associate it with speed with a project duration of more than twenty years. The object if this study was not to evaluate the efficiency of this particular project. Thus, from that perspective no judgment is placed upon the relation between time and efficiency. Furthermore, based on the project description in chapter four (§4.2.5), it is defensible to place the state-of-the-art NH90 helicopter within the NPD domain. The relation between speed, or more abstract 'time', and NPD in this case is an interesting one. This study indicates that complex projects with multiple partners, both public and private, with competing interests and, *au contraire*, even with a fair amount of goal consensus, endure changes that affect the project. Figure 27 in chapter five (§5.2.4) portrays the reciprocal effect between changes and the influencing process. Although this study did not treat time as an 'inter-subjective capacity' (Bakker & Janowicz-Panjaitan, 2009)(by observing differences in time perspectives between public and private actors or between organizational layers), the findings do portray time as a key variable in new product development projects. The template on the context of influencing as portrayed in figure 27 can help both researchers and practitioners to position the role of time in actual projects and in studies that are more formal and abstract in nature.

Building on the notion of 'project duration', the findings indicate the distinction of different phases in NPD projects as important to the influencing process. Although this study starts to focus on its cases after the start of the project, the pre-project phase, or fuzzy front end appeared to play an eminent role in the power balance between the actors and as such in the influencing activities between the partners (§4.2.4 and §7.3). The concept of phases and the shift in power balance (or lack in shift in case of the NH90 program) is a valuable addition to the influencing literature. The literature on influencing perceives means and ends as rather static. It mostly observes influencing attempts in snap

shots or in limited time spans at the most (Somech et al., 2002; Yukl et al., 1992) or it briefly mentions 'process' or 'change' without actually explaining its content (Pfeffer, 1992; Vecchio, 2007). The findings, however, indicate a process of changing power balances, variations in goal consensus over time, and consecutive influencing activities with tactical intent. This study therefore promotes influencing as a 'notion in motion'. Even more so, since influencing induces delays. Time passing by may be accompanied by environmental changes. Chapter five indicated operational, political, and technological changes (§5.2.3). These changes cause new themes that need to be influenced. Figure 27 displays this iterative process.

8.3 Contributions to Literature

This research makes several contributions to the literature on influencing in general and to influencing in NPD projects in particular. Although influencing is a phenomenon that has drawn the attention of scholars for many centuries, this attention was mostly directed towards intra-organizational influencing. The notion of outward influencing as the only externally oriented direction of influencing received much less attention (Gupta et al., 1999). Even if influencing was related to the environment, the actual process of how organizations distributed their influencing attempts between hierarchical levels was left unclear. This study represents one of the first attempts in answering the call to develop a comprehensive understanding of organizational outward influencing (Pfeffer et al., 2003). Specifically, this study provides insight in how organizations in NPD projects attempt to influence project partners and how these influencing attempts, distributed between organizational layers, are related to each other. The ever growing number of inter-organizational NPD projects calls for a systematic understanding of power balances within these projects and how organizations can influence them. Thus, a contribution of this study is to influencing theory by providing a provide descriptive and exploratory theory that illuminates the link between the contextual factors of NPD projects and outward organizational influencing. Furthermore, based on the NH90 case research, this study makes a contribution to influencing theory by studying both the intra-organizational and inter-organizational structuration of influencing.

Second, this study makes a contribution to the NPD literature. Previous studies have contributed to a better understanding of the nature and advantages of collaborative efforts in product development (Handfield et al., 1999; Moehrle et al., 2008; Ngai et al., 2008). These studies incorporated inter-firm relations that are mainly focused on the actual production of new products. The effect of this rather one-sided perspective is that knowledge on new product development projects is predominantly viewed from a

manufacturer's point of view . This is logical for projects that deliver goods and services in mass production. However, complex, multi-billion euro projects, in for instance maritime, military, and aerospace industries, (Bacharach et al., 2000) involve determined buyers. For that reason, this study involved both buyers and suppliers. This study, therefore, contributes to a better understanding of the intertwined relations of these specific actors in NPD projects.

The tactical management of boundaries among actors is an integral part of organizational life (Bacharach et al., 2000). This study answers the call for further exploration and analysis of this notion, thereby contributing to the literature on logics of action (Bacharach et al., 2000; Bacharach et al., 1996; Karpik, 1978a). With an emphasis on logics of action directed towards influencing (logics of influencing), this study addresses a niche in literature on organizational cognitive structures. By examining the micro-sociological underpinnings of social structures within organizations, this study shows the importance of institutionalized social interactions that occur among organizational members. This study elaborates on the findings of Bacharach et al. (1996) and Dougherty (1992) that discuss the existence of differences of logics within organizations. Within a larger context of NPD projects, differences in logics also exist between members of different organizations. By zooming in on the tactical management of both intra- and inter organizational boundaries, this study expands existing knowledge within the logics domain.

Finally, this study contributes to the Strategy-as-Practice literature. Whittington stated that strategy practice research becomes urgently concerned with how strategy practices are developed and disseminated, both inside and outside organizations. 'The practice perspective, then, is distinctive in its emphases on both the intra-organizational and the extra-organizational' (Whittington, 2006: 629). As the contribution to the literature on logics already revealed, this study illuminates both intra- and inter organizational oriented practices of influencing within a thoroughly described context (extra organizational). In addition, Johnson, Melin, and Whittington (2003) state that studies should be located in their wider context. 'They need to span levels: the level of individual interaction, the organizational level and the level of the organization's context' (Johnson, Melin, & Whittington, 2003:17). By providing an empirical, in-depth insight in the practices of individuals between different organizational levels, oriented towards a pluralistic environment, this study combines and extends prior research on this topic (Denis et al., 2007; Floyd et al., 2000; Paroutis et al., 2007).

8.4 Implications for Practice

This study argues that influencing in NPD projects is germane and that influencing activities will continue to be of the utmost importance due to the uncertain nature of these projects. Drawing on empirical observations of organizations in a real-life NPD context, this study shows how organizations can strategically leverage influencing logics to increase their competitiveness. By means of a thorough description of a NPD context and the influencing practices and organizational processes employed by four organizations, this study provides insight to managers on how to improve their influencing capabilities from an organizational point of view. The emphasis on managerial practice evolved into frameworks of both context and influencing processes. This should guide participants in NPD projects on how to leverage influencing logics throughout their organization to enhance their engagement in (multi-party) projects. The findings in the discussion section of this chapter, provide several directions for management.

First, the analysis on power resources indicated the importance of the pre-project phase. This phase defines the power balance. The strength of socio-economic resources has a considerable impact on this power balance. A clear advice for politicians and managers who want to participate in NPD projects, especially to be able to influence the outcome of the project, is to be aware of their resources. With an emphasis on socio-economic and institutional resources, soft power resources should not be left unmentioned. Within an established power balance, organizations can affect their influencing practices by human resource management, by installing boundary spanners, and by organizational structuring. First, an HRM policy in which knowledge and experience in project management and aerospace technology are at center of attention will benefit the influencing practices of the organization. Second, acknowledging escalation opportunities of counterparts, and matching them, will support these practices as well. Although this last remark seems logical at forehand, it contradicts the current tendency to ‘flatten’ organizational structures. Third, installing boundary spanners at partner organizations, lead organizations, or network administrative organizations, has a positive effect on information gathering. Finally, actors can link their soft power sources to the more powerful institutional and socio-economic resources of network partners. A strategic use of soft power resources may therefore strengthen an initially weak set of power sources.

Second, an important comment is directed towards the cohesiveness of the organization. NPD projects, especially those with numerous actors and matching contradicting interests, are arenas in which actors are played out against each other. Not only will ‘partners’ try to drive a wedge between coalition partners, they will also try to do so *within* an

organization, between hierarchical layers. A cohesive organization throughout all hierarchical layers, with a shared end state in mind (institutionally strong organizations), will decrease the chance such distortive activities will undermine their position in the project.

Third, a remark should be made about the formality of institutional rights. The findings indicated that the use of veto rights or unanimity clauses may appear to level large and small actors to equal partners. In practice, however, veto rights and unanimity are to some extent ceremonial and it is still work and cost share that dictate who has a decisive say and who has not. The findings should warn naïve officials who want to influence a project's outcome, based on their 'equally' important status of full partner.

A final comment is directed towards managers that constitute network administrative organizations (NAO's). The findings of this study have indicated that NAO's are left powerless, at least to a certain extent, if they are not clearly positioned within the network. This relates to both their role and strategy. If a NAO is constituted, it needs trust and the accompanying degree of authority. This study therefore suggests to avoid situation in which NAO's 'get stuck in the middle'. NPD partners should furthermore watch out for incremental dilution of their assimilation strategy, and should regularly evaluate their role and position in the network. By doing so, they can increase the speed of project processes, avoid bureaucracy, and increase the possibility of a NAO to achieve high levels of network effectiveness.

8.5 Limitations of This Study

Notwithstanding an extensive research design leading to several important contributions, this study is not without its limitations. First, this study is qualitative in nature. To acquire an in-depth understanding of the subject at hand, qualitative research is considered most suitable for this particular study. However, especially in contrast to quantitative research, it lacks a substantial number of respondents. Even within the realm of qualitative research, the number of respondents is not considerably high. This study tries to compensate for that by triangulation and by interviewing respondents who 'matter'. This resulted in the fact that respondents were interviewed who actually played an important role in the influencing process. Even in that sense, quality was chosen over quantity. In addition, this study was interested in differences in logics between organizational layers. This also included layers that involved a limited number of actors (like the ministerial level). However, it goes without saying that an increased number of respondents would undoubtedly increase the generalization of this study. However, *moderatum* generalization,

or analytical generalization, (Walsham, 1995; Williams, 2000), has been the first concern of this study, thus inferences made are theoretical rather than empirical in nature. Even though large-scale NPD projects, like programs concerning air defense and command frigates and the F-35 Lightning II, may benefit from this study, care must be exercised when transferring the findings of this study to other settings than those examined. NPD within a defense related domain may be different than in other domains. First, because the number of manufacturers is limited and the clientele is limited to a select group of nations only. Second, due to the involvement of nations, military equipment, and a substantial amount of money, political involvement is inevitable. This does not necessarily need to be the case in every NPD project. Thus, caution is necessary when extending the findings of this study to contexts that represents NPD in areas that are not military related. Also, the cases were located in Western-Europe. Although important differences in influencing emerged in this restricted area, it is plausible that variations may show when the findings of this study are applied in other countries. In addition to this limitation, this study did not include the effect of cultural differences on influencing. Although culture plays an eminent role in inter-organizational cooperation, it is left outside the scope of this study.

8.6 Future Research

At their core NPD projects are about risk, ambiguity and uncertainty. Influencing activities in these settings will therefore remain important processes for all the participating actors. The complexity of current goods and services will ask for a growing need of NPD projects. Scholarly contributions on outward influencing will therefore be of increased importance. Related to the focus of this study, several future research opportunities exist. First, the present study can be extended and complemented by a quantitative survey of outward, organizational influencing attempts to test the findings of this study and to improve their generalization.

Second, while this study focused on outward influencing, future research can directly investigate the effect of these influencing attempts. This study focused on how organizations influence. Since influencing is all about making efforts to make another actor do something he would otherwise not do, it is interesting to know how organizational influencing attempts really have an effect on the project counterparts.

Third, this research did not incorporate the internal and external stakeholders of the four focal cases. These stakeholders, like other ministerial departments, operational users, or stockholders, influence the definition of the desired end state and the alterations of this

end state. Since ends are crucial parts of means-end frames, insight in these processes would undoubtedly benefit a thorough understanding of goal assignment as part of the influencing process in NPD projects.

Fourth, longitudinal research can be performed to examine the process of influencing actions and influencing reactions. Figures in this study portray an iterative process of influencing from a single actor's point of view, while insight in the reciprocal process of influencing would contribute to an understanding of iterative processes of influencing between multiple actors with multiple hierarchical layers.

Fifth, while the present study focused on three overarching sets of resources, it did not investigate the process on how the several means that constitute these three sets get linked and to what extent different configurations will affect influencing activity. Further research on this topic will contribute to a better understanding of the construction of power balances before a NPD project starts and will provide for a better insight in how power balances may shift during these projects.

Sixth, a relatively high number of respondents indicated France as being highly effective in its influencing attempts. Based on their unwillingness to participate in this study, French respondents were not incorporated in the data gathering process. Including French actors in this type of project in future research is therefore strongly advised.

Seventh, it would be interesting to investigate the role of boundary spanners in representing organizations like NHI and NAHEMA. Although they officially work for these organizations and as such are involved in the influencing attempts of these organizations, they are also part of the influencing process of their parent organizations. Even though such a study could be considered more psychological in nature, focusing on individual practices, they would contribute to the organizational influencing literature, because these boundary spanners appear to be important tools within the realm of soft power resources.

Eight, the definitions of 'tactics' or activities used in studies for influencing by individuals did not prove to match organizational influencing activities. This study made an attempt to improve the list of organizational influencing activities by making some alterations, while on the other hand some activities were abandoned because they were not mentioned by the respondents. However, future research can contribute to theory on organizational influencing by defining constructs, based on quantitative and qualitative research.

Finally, research on organizational influencing could be conducted in networks other than defense-related networks. The existence of political actors, large scale industries, and public stakeholders may provide a public-private NPD network with different dynamics than for instance an exclusively private network.

8.7 Conclusion

This research examined how four organizations, participating in a new product development project, influenced their counterparts. With an interpretative approach focusing on logics of action of multiple hierarchical layers within these organizations, this study actually found differences of influencing logics. Differences are mostly observed in the ends the respective layers pursue. Differences in activities and means are only marginal and mainly depend on organizational role and size and less on hierarchical level. This study portrays the involvement and importance of multiple layers within the organizational, outward influencing process. In addition, the findings indicate socio-economic resources as most important in defining the power balance in the fuzzy front. Together with the notion of turning the initially weak soft power resources into powerful means by linking them to resources of other partners, the findings of this study can be gainfully leveraged to improve influencing capabilities of organizations in a NPD project. In addition, the extended framework on the context of influencing (figure 27) in combination with the means-ends framework (figure 33) can inform managerial practice, enhancing both structure and process of organizational influencing. Whilst further research is required as discussed in section 8.5, the findings of this exploratory study suggest that influencing is germane in NPD projects and that a strategic use of organizational layers, not being naïve towards organizational resources, and being pro-active is valuable to achieve a competitive advantage when it comes to influencing. Although this study recognizes its limitations, it is hoped that this study will provide the foundation for, and stimulate, future research on organizational influencing and that it informs managerial practice on this topic at the same time.

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SAMENVATTING (SUMMARY IN DUTCH)

Door verregaande specialisatie, producten die steeds complexer worden en de integratie van verschillende soorten producten zijn bedrijven de laatste decennia zich steeds meer gaan richten op samenwerking met externe partijen. De samenwerking met anderen heeft als voordeel dat producten geproduceerd kunnen worden die door een organisatie alleen niet gemaakt kunnen worden. Bovendien kan door samenwerking kennisontwikkeling sneller gaan. Een nadeel van samenwerking is dat een organisatie zijn afhankelijkheidspositie vergroot. Opportunistisch gedrag van partners zal hierbij tot zekere hoogte altijd een risico blijven. Ook al heeft de samenwerking een gemeenschappelijk doel, de meeste partners in een samenwerkingsverband hebben ook voor zichzelf een doel gesteld. Deze doelen hoeven niet altijd synchroon te lopen met het doel van de samenwerkende partners als geheel. Deze tegenstelling hoeft niet per se tot problemen te leiden, maar het roept wel de vraag op hoe organisaties binnen een samenwerkingsverband hun partners beïnvloeden om hiermee hun individuele doelen te behalen.

Dit onderzoek focust zich op dit beïnvloedingsvraagstuk door organisaties te observeren die participeren in zogenaamde new product development (NPD) projecten. Bij dit soort projecten is het moeilijk om bij de start van het project reeds het eindproduct vast te stellen. Eisen die aan dit soort producten worden gesteld creëren vaak ruimte in de contracten die met dit soort projecten gemoeid zijn. Deze ruimte wordt tijdens de loop van het project ingevuld. Dit heeft grote invloed op de bewegingsvrijheid die organisaties krijgen om tijdens het project hun partners te beïnvloeden omtrent de invulling van die ruimte. Daarnaast is er binnen NPD projecten vaak sprake van een grote diversiteit aan organisaties. Het samenvoegen van verschillende organisaties met verschillende achtergronden, culturen, doelen en inzichten vergroot de kans op het uiteen lopen van belangen. Deze arena, gevuld met organisaties met verschillende belangen en met ruimte in contracten en andere formele afspraken, is een context die door de toenemende complexiteit van producten in de toekomst een steeds prominentere rol zal gaan spelen in zowel de publieke als private sector.

Naast de belangrijke rol die context speelt in dit onderzoek, is de focus van dit onderzoek gericht op de organisatie zelf. In de literatuur over beïnvloeding wordt voornamelijk gekeken naar de wijze waarop individuen hun ondergeschikten, bazen of collega's beïnvloeden. De wijze waarop individuen hun collega's bij andere organisaties beïnvloeden heeft veel minder aandacht gekregen. Op organisatieniveau is weliswaar aandacht besteed aan beïnvloeding van andere organisaties, maar daarbij wordt de enkele

organisatie gezien als een soort zwarte doos. Er is minder aandacht voor wat er in die doos gebeurt. Dit is opmerkelijk, omdat er juist in complexe projecten organisatieleden betrokken zijn die verspreid zitten over verschillende organisatielagen. Van projectmedewerkers tot directeur, iedereen die betrokken is bij NPD projecten heeft zijn eigen middelen en doelen die hij of zij dient te behalen. De wijze waarop deze middelen, activiteiten en doelen over de organisatie verspreid zijn (zogenaamde 'logics of action') en op welke wijze dit invloed heeft op het beïnvloedingsproces naar andere organisaties toe heeft tot nu toe relatief weinig aandacht gekregen. Deze inzichten tezamen hebben uiteindelijk geleid tot het doel van dit onderzoek: inzicht verschaffen op welke wijze organisaties elkaar beïnvloeden binnen de context van NPD projecten. Deze inzichten moeten uiteindelijk eenieder die betrokken is in NPD projecten handvatten verschaffen om optimaal te kunnen beïnvloeden binnen een NPD context.

Voor dit onderzoek is een aantal stappen gezet. Allereerst is gekeken wat er reeds bekend is over beïnvloeding. Ook al is er relatief weinig aandacht besteed aan organisatorische beïnvloeding, onderwerpen die gerelateerd zijn aan dit onderwerp kunnen wel inzichten verschaffen in relevante aandachtspunten. Daarnaast heeft literatuuronderzoek naar NPD projecten inzichten verschaft omtrent de invloed van context op het beïnvloedingsproces. Deze inzichten tezamen zijn gebruikt als analytische lens bij de observatie en analyse van de vier cases van dit onderzoek.

Voor deze case studie heeft het NH90 project als context gefungeerd. Dit specifieke NPD project richt zich op de ontwikkeling van een nieuwe defensiehelikopter, de NH90. De vier cases in dit onderzoek zijn de defensie materieel organisaties van zowel de Nederlandse als de Duitse overheid, NAHEMA als vertegenwoordigende organisatie van de publieke klanten, en Fokker als private partner.

Uit literatuuronderzoek bleek dat NPD als context verschillende complexiteiten met zich meebrengt. Uit de analyse van de cases bleek dat de verschillende organisaties op verschillende manieren worden beïnvloed door deze complexiteiten, ook al bevinden ze zich in dezelfde context. De relatie met belanghebbenden zoals operationele gebruikers en politici speelt hierbij een grote rol. Deze relatie zorgt namelijk voor een verkleining van de speelruimte die de organisaties krijgen in de samenwerking. Daarnaast bleek dat beïnvloeding binnen complexe projecten een iteratief proces in gang kan brengen. Hierbij hebben omgevingsveranderingen, zoals politieke machtsverschuivingen en nieuwe operationele eisen, een grote invloed op het beïnvloedingsproces.

Als de focus wordt verlegd naar de organisatie zelf, dan blijkt dat de doelen die worden nagestreefd op de verschillende organisatieniveaus op één lijn worden gebracht door een

transformatieproces dat plaats vindt bij de start van het project. Echter, het feit dat alle doelen consistent zijn, zorgt er niet per definitie voor dat beïnvloedingsmogelijkheden op lagere niveaus ook worden verbeterd. Daarnaast blijkt dat het escaleren van problemen een fundamenteel onderdeel is van het beïnvloedingsproces. Het wordt gebruikt als signaalmiddel om aan te geven dat een bepaald probleem belangrijk is, maar ook om hiërarchisch hoger geplaatsten, met een grotere mate van autoriteit, te betrekken in het proces. Dit escalatieproces geeft tevens aan dat de relatie tussen verschillende niveaus in de organisatie van eminent belang is voor het extern gerichte, organisatorische beïnvloedingsproces.

Tenslotte blijkt uit de analyse dat een organisatie die verschillende partners vertegenwoordigt binnen een project sterk afhankelijk is van het vertrouwen van die organisaties. Als dit vertrouwen wordt omgezet in een hoge mate van beslissingsbevoegdheid zal dit een positief effect hebben op de effectiviteit van het netwerk als geheel. Dit houdt daarentegen wel in dat de afzonderlijke organisaties een deel van hun beïnvloedingsmogelijkheden uit handen geven en daarmee afhankelijker worden van deze centrale netwerkspeler. Hieruit blijkt een afweging tussen het nastreven van doelen van de enkele organisatie zelf en het nastreven van de netwerkdoelen. Uit de analyse bleek dat vanwege het eerder genoemde iteratieve karakter van het beïnvloedingsproces, de factor tijd hier een belangrijke rol in speelt.

Het onderzoek vertaalt inzichten op de genoemde terreinen naar aanbevelingen voor de praktijk en sluit af met beperkingen en mogelijkheden voor vervolgonderzoek.

Appendix A: Interview Protocol

Interview protocol

Date:

Time:

Location:

Pre interview checklist

- voice recorders
- reserve batteries
- Bloc note and pencils
- Interview location

I. Introduction

- Relevance of the research

- Growing number of public private partnerships
- Growing complexity of high technological (military) products – this also makes projects more complex
- Declining defense budgets – more cooperation between military organizations

- Purpose of the research

- To improve the competences of organizations in managing public private cooperation

- Procedure for the collection of data and confidentiality

II. Respondent Information

Name :

Organization:

Job description :

Remarks :

1. Can you describe the [Organization] organization?

- Which divisions are involved in the project?
- Can you describe what your position is within this organization?
- Can you describe what your main tasks are?
- Can you describe what your main responsibilities are?

III. Core questions [indication 70% of the total interview]

2. Can you describe what the goals of your organization are in the NH90-project? (ASK FOR EXAMPLES!)

- Why does your organization cooperate in the NH90 project?
- Can you describe what the goals of the other divisions of your organization are in the NH90-project
- How do you coordinate with different divisions within your organization?
- Are there any tensions/conflicts/issues/challenges between the divisions?
- Which persons have the authority to make decisions within your organization?
- Regarding what issues?
- Which criteria do you use to determine whether a problem/issue should be escalated /brought to a higher level?

3. Can you describe how your division tries to achieve its goals? (ASK FOR EXAMPLES!)

- Which means/resources do you use?
- How do you employ them?
- To what extent do you think they are effective?
- What kind of consequences does it have for the cooperation in the project?
- Do you determine a certain strategy with other departments to influence a certain actor?
- Who determines the strategy?
- Is it clear within the organization who has the opportunities/resources to influence other partners?

4. Can you describe the goals of the other organizations in the NH90-project? (ASK FOR EXAMPLES!)
 - Can you describe how they try to achieve their goals?
 - Which resources do they use?
 - How do they employ them?
 - To what extent are they effective?
 - What consequences does it have for the cooperation among the partners?
 - Do you think partners use certain strategies to influence your organization?
 - Who do you think determines the strategy?
 - What means/resources do your counterparts have to influence decision making processes?

5. What organizations do you cooperate with the most in the NH90-project?
 - Why do you cooperate with these organizations?
 - How do you work together with these organizations?
 - On what tasks, problems, issues?

6. Can you describe certain differences between the partners in the way they approach certain tasks, decisions, issues, problems?
 - How do their approaches differ?
 - How does this influence joint decision making processes?
 - How does it influence the cooperation among the partners?

7. Were there any significant changes in the role of [Organization] during the project?
 - - What were the causes?

8. Can you describe if there have been any significant changes in the relations between the different partners during the course of the cooperation?
 - What were the causes?

- What consequences did it have for the achievement of the goals of the project?
 - How did it affect the cooperation between the partners in the project?
 - How would you consider [Organization]’s effectiveness in terms of budgeting, time scheduling, and product performance in relation to its goals?
9. Can you describe the most remarkable aspects of the international cooperation?
- What did you think were very positive aspects of the cooperation?
 - What did you think were very negative aspects of the cooperation?

IV. Closure

- Closure of the content

- Are there certain things/aspects of the project we have not yet covered?
- Are there certain things you would do completely different in a new project?

- Network

- Do you know organizations/persons of whom you think it would be very interesting for us to talk to?
- Do you know how we could obtain additional information regarding the project?
- Would you mind if we contact you again if we have any further questions?

- Interview process closure

- Repeat procedure for data analysis and confidentiality
- Send transcript for factual corrections
- White paper on research findings
- How did you experience the interview? Do you have any pointers for improvement?

Appendix B: Overview of Respondents

| Organization | Position | Interview Location | CODE |
|--------------------|--|----------------------|------|
| DMO – MoD | Minister of Defense | The Hague (NL) | D1 |
| DMO – MoD | Secretary of State | Den Helder (NL) | D2 |
| DMO – MoD | Secretary of State | Ede (NL) | D3* |
| DMO | National Armaments Director | The Hague | D4 |
| DMO | Director Projects & Procurement | The Hague | D5 |
| DMO | Sous-chef Projects & Procurement | The Hague | D6 |
| DMO | Project Officer Public-Private Cooperation | The Hague | D7 |
| DMO | Director Weapon Systems | The Hague | D8 |
| DMO | Project Leader NH90 | The Hague | D9 |
| DMO | ILS Manager NH90 | Den Helder | D10 |
| DMO | Project Controller NH90 | The Hague | D11 |
| DMO | Contract Manager NH90 | The Hague | D12 |
| BWB – MoD | Permanent State Secretary | Berlin | B1 |
| Bundestag | Defense Committee member | Berlin | B2 |
| BWB | Director Project Division Air | Bonn | B3 |
| BWB | Project Leader NH90 | Bonn | B4 |
| BWB | Deputy Program Manager NH90 | Bonn | B5 |
| BWB | Deputy Program Manager NH90 | Bonn | B6 |
| Budget Directorate | Controller at Budget Directorate | Cologne | B7 |
| BWB | NH90 ILS Project member | Bonn | B8 |
| BWB | NH90 Project member | Bonn | B9 |
| NAHEMA | Deputy General Manager | Aix-en-Provence (FR) | N1 |
| NAHEMA | Logistics Division Leader | Aix-en-Provence | N2 |
| NAHEMA | Engineering Division Leader | Aix-en-Provence | N3 |
| NAHEMA | Administration Division Leader | Aix-en-Provence | N4 |
| NAHEMA | GFE/GFF & Hardening Manager | Aix-en-Provence | N5 |
| NAHEMA | Contract Manager | Aix-en-Provence | N6 |
| NAHEMA | Contract Manager | Aix-en-Provence | N7 |

| | | | |
|--------|-------------------------------|------------------|-----|
| Stork | Chief Operation Officer (COO) | Naarden (NL) | F1 |
| Stork | Director Stork Aerospace | Naarden | F2 |
| Fokker | Stork SP Aerospace | Papendrecht (NL) | F3 |
| Fokker | NH90 President (EDBL) | Papendrecht | F4* |
| Fokker | NH90 Program Director (EDBL) | Papendrecht | F5 |
| Fokker | Commercial Director (EDBL) | Papendrecht | F6 |
| Fokker | Commercial Manager (EDBL) | Papendrecht | F7 |

| | | | |
|---------|------------------------------|------------|----|
| Armaero | NH90 Deputy Program Director | Rome (IT) | O1 |
| Armaero | NH90 ILS Manager | Rome | O2 |
| Armaero | NH90 Controller | Rome | O3 |
| DGA | NH90 Program Director | Paris (FR) | O4 |
| NIID | Director NIID | The Hague | O5 |

* Interview conducted in absence of author.

Influencing Inside-Out

Organizational Outward Influencing in a Military New Product Development Context

New product development (NPD) projects bring together a variety of partners that may not only pursue shared interests. The integration of different interests comes with struggles. These hurdles have to be overcome in order to be able to move on, to refrain from getting stuck in arguments and to get things done. Activities to integrate interests give rise to a power game that is often complex, sometimes harsh, but still, ever present. Influencing, as the use of power is referred to, is not necessarily opportunistic or machiavellistic in nature. It concerns pro- or reactive behavior of organizations that are faced with opportunities and constraints arising in complex NPD projects.

With organizational outward influencing as subject, this study portrays the involvement and importance of multiple layers within the organizational, outward influencing process. It uses an interpretative approach to study the NATO helicopter NH-90 program, focusing on the logics of action of both public and private actors participating in this NPD project.

The findings of this study suggest that strategic use of power recourses, dispersed over organizational layers, can be gainfully leveraged to achieve an organizational advantage when it comes to influencing. The findings, in combination with the developed frameworks, provide public and private managers with innovative concepts of organizational influencing. They extend research in the area of NPD and public-private cooperation, offering directions for future, more in-depth research in this particular domain.